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TWELFTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

OF THE

CENTRAL PARK.



Geo. F. Demarest as a *Token*
TWELFTH ANNUAL REPORT *to Y. Hillier*

OF THE

BOARD OF COMMISSIONERS

OF THE

CENTRAL PARK,

FOR THE

YEAR ENDING DECEMBER 31, 1868.

NEW YORK:

EVENING POST STEAM PRESSES, 41 NASSAU STREET.

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(1868)

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Board of Commissioners of the Central Park.

OFFICERS AND COMMITTEES.

CHARLES H. RUSSELL,
J. F. BUTTERWORTH,
WALDO HUTCHINS,
THOMAS C. FIELDS,

ANDREW H. GREEN,
HENRY G. STEBBINS,
R. M. BLATCHFORD,
M. H. GRINNELL.

President.

HENRY G. STEBBINS.

Treasurer and Comptroller.

ANDREW H. GREEN.

Vice-President.

M. H. GRINNELL.

Secretary.

THOMAS C. FIELDS.

Finance.—Messrs. RUSSELL, GRINNELL, BUTTERWORTH.

Executive.—Messrs. GRINNELL, GREEN, HUTCHINS, RUSSELL,
FIELDS.

Auditing.—Messrs. GRINNELL, FIELDS, BUTTERWORTH.

By-Laws and Ordinances.—Messrs. HUTCHINS, FIELDS, GREEN.

Statuary, Fountains, and Architectural Structures.—Messrs. RUSSELL, BUTTERWORTH, GREEN.

Roads and Avenues.—Messrs. BLATCHFORD, FIELDS, GREEN,
HUTCHINS, BUTTERWORTH.

R E P O R T .

To the Honorable

The Common Council of the City of New York :

In pursuance of the requirements of the statute, the Board of Commissioners of the Central Park makes this Report for the year ending with the 31st day of December, 1868, being its Twelfth Annual Report.

The total expenditure on account of construction for the year 1868, was \$249,822 12.

This sum has been applied chiefly to the Belvidere, to the boundary wall, to the rustic structures, to the iron work for the ceiling of the Terrace, to the floor and ceiling of the Terrace with tile, to a new pipe drain on the west side of the Park to divert a flow of water that for several years has interfered with the closing up of the ice over the surface of the Lake, and to the construction of a drain across that portion of the Park lying west of the Eighth Avenue.

The preliminary work for a maze at the east of the old Reservoir has been done.

The ornamental stone carving of the Terrace has also been continued.

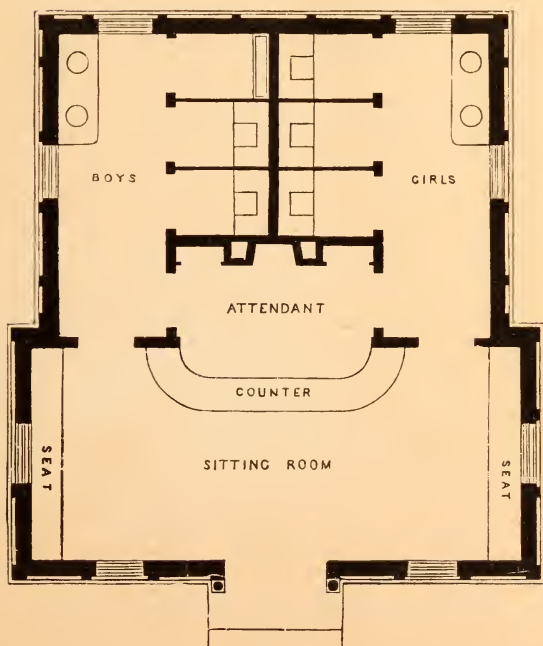
The play house for boys, on the play ground, is nearly complete, as is also the children's cottage near the dairy and the children's shelter. A small play-house for girls, near the children's gate, has been completed.



THE CHILDREN'S SHELTER.



The Children's Cottage.



Principal Floor Plan.

The old Arsenal building has been somewhat changed at small expense, to serve the many purposes which it temporarily answers in the Park.

The following structures of rustic work have been completed.

895 lineal feet settees.

245 " " arbor.

54 " " fence.

2 Summer Houses.

16 Tables.

2 Bird Houses.

55 " Nests.

1 Bee-Hive.

201 feet of Park seats have been provided.

5 Grass Carts.

3 Dirt Carts.

1 Water Truck.

7 Tool Carts.

1 Hand Cart.

3 Ice Planes.

8 Road Scrapers.

3 Snow Scrapers.

2 " Plows.

1,443 feet gas pipe laid.

2,660 feet drain pipe laid.

935 feet water pipe laid.

1,365 feet of New Brunswick stone wall, and

1,336 feet of wall have been built and re-built.

2,782 feet of base course have been set.

1,536 feet of walk have been completed in the upper
end of the Park during the year, and

92,129 square feet of composition walk laid.

The supervision, care, and management of the Park have required and received the usual attention—each year adds to previous experience in the multifarious and diversified operations involved, and each succeeding season develops the necessity of arrangements to meet new popular demands.

The various conveniences and attractions of the Park have been sought by great numbers, and there is no apparent lack of interest in its progress on the part of our citizens, or of visitors from all quarters.



THE DRIPPING ROCKS.

The whole number of persons visiting the Park during the year 1868, as shown by the returns kept at the gates, and which are tabulated in the appendix hereto annexed, is as follows :

Pedestrians.....	3,121,167
Equestrians.....	71,064
Vehicles.....	1,299,189

Allowing two extra persons for each vehicle, the number of visitors at the Park during the year, was 7,089,798.

To this is to be added a large number that are not included in the returns.

The total expenditure on account of maintenance during the year, was \$269,416 31, devoted to the following objects :

The expenditures on account of maintenance, 1868, thus far are as follows :

	LABOR.	MATERIALS.	TOTAL.
Roads, care of,	\$23,220 77	\$366 00	\$23,586 77
Roads, repairs of,	5,283 31	15,415 23	20,698 54
Bridle roads, care of,	785 97	.....	785 97
Bridle roads, repairs of,	181 63	.....	181 63
Walks, care of,	11,151 83	47 30	11,199 13
Walks, repairs of,	3,376 80	13,645 55	17,022 35
Plantations,	13,257 20	1,075 07	14,332 27
Turf,	14,958 89	540 90	15,499 79
Water,	504 15	36 67	540 82
Ice,	16,013 11	4,023 67	20,036 78
Irrigation,	11,089 42	471 66	11,561 08
Thorough drainage,	218 07	299 28	517 35
Transverse Roads,	196 63	.....	196 63
Masonry and bridges,	1,092 52	149 89	1,242 41
Tools,	1,362 14	1,170 02	2,532 16
Surface drainage,	136 28	.....	136 28
Buildings,	3,829 23	404 73	4,233 96
Lighting Park,	232 34	204 47	436 81
Museum, . . . . .	.....	561 61	561 61
Meteorological Department,	1,005 00	135 06	1,140 06
Animals,	3,723 96	7,098 94	10,822 90
Sheep,	940 04	721 05	1,661 09
Restoring extinct animals,	2,916 62	236 34	3,152 96
Manure,	446 33	.....	446 33
Park and gate-keeper's wages and uniforms, &c.,	71,030 59	334 55	71,365 14
Special park-keepers' wages,	2,616 34	.....	2,616 34
Gallery of Art	295 30	86 58	381 88
Music,	4,273 00	.....	4,273 00
Stationery, printing and advertising,	1,203 15	.....	1,203 15
Miscellaneous,	7,986 11	4,065 01	12,051 12
Proportion of salaries,	15,000 00	.....	15,000 00
			\$269,416 31

Wages have on the whole ranged higher than in any previous year since the Park work commenced.

The following tables show the force employed on the Park during each month, and the average working force per day, for each month during the past year.



RIVULET IN THE RAMBLE.

STATEMENT showing in number of days the force employed on the Park and other works under the charge of the Board during each month of the year 1868.

MONTHS.	General Foremen.	Foremen.	Laborers.	Rockmen.	Blasters.	Skilled Laborers.	Carts.	Double Teams.	Gardeners.	Carpenters.	Stonemasons.	Pathers.	Blacksmiths.	Helpers.	Carvers.	Janitors.	Laborers Zoological Department.	Ladies' Maids.	Sculptors.	Plumbers.	Uninformed Gatekeepers.	Uninformed Gatekeepers.	Messenger Boys.
January.....	31	156	5,646			114	503	121	282	400	588	105	26	97		93	155	110		13	559	168	52
February.....	29	142	5,131			115	513	94	261	320	316	40	25	76		87	146	115			549	149	50
March.....	31	141	3,369			123	663	136	279	309	386	70	26	87	22	93	148	97		12	591	144	52
April.....	30	142	4,400			119	912	174	258	404	491	105	26	91	26	90	148	90		16	575	150	52
May.....	31	145	4,818			129	996	196	271	470	431	414	26	161	27	93	155	91	24		580	154	52
June.....	30	142	5,797	46		145	1,161	214	280	560	383	621	26	91	26	20	145	75	26	26	516	174	52
July.....		147	6,271	627		145	1,343	281	233	612	656	792	31	104	27	25	93	93	25		507	184	54
August.....		147	5,955	638		149	1,650	293	297	625	658	494	67	102	27	93	151	93	26	25	504	197	52
September.....		154	5,142	849		143	1,610	259	230	659	593	665	52	104	26	90	117	77	26	24	487	202	52
October.....		255	5,465	2,510		125	2,027	391	294	688	506	562	54	119	40	93	124	62	27		531	201	54
November.....	23	303	5,993	3,401	146	110	2,579	470	241	592	396	379	46	134	68	90	120	58	25		554	164	50
December.....	30	451	8,010	4,956	185	114	2,790	590	283	621	657	68	52	172	85	90	123	87	26	26	562	164	43

STATEMENT of the average working force per day employed on the Park, and on other works in charge of the
Board for each month of the year 1868.

Months.	General Foremen.	Foremen.	Laborers.	Rockmen.	Blasters.	Skilled Laborers.	Carts.	Double Teams.	Gardeners.	Carpenters.	Stonemasons.	Painters.	Blacksmiths.	Helpers.	Carvers.	Janitors.	Laborers Zoological Department.	Ladies' Maids.	Sculptors.	Plumbers.	Messenger Boys.
January.....	1	5	200			4	23	5	10	18	22	5	1	4		3	5	3		1	2
February.....	1	5	190			4	20	3	10	14	13	2	1	3		3	5	4			2
March.....	1	5	128			4	22	5	10	13	14	3	1	3	1	3	5	3		1	2
April.....	1	5	163			4	33	6	9	15	16	4	1	3	1	3	5	3			2
May.....	1	5	180			4	35	6	10	17	15	14	1	4	1	3	5	3	1		2
June.....	1	5	200	2		5	40	7	11	22	16	25	1	3	1	3	4	2	1	1	2
July.....		5	210	24		4	43	9	10	23	26	30	1	4	1	3	5	3	1		2
August.....		5	205	25		5	51	10	10	24	26	35	2	4	1	3	5	3	1	1	2
September.....		5	187	26		5	57	9	10	25	23	27	2	4	1	3	4	3	1	1	2
October.....		9	182	93		4	68	14	10	25	18	21	2	4	2	3	4	2	1		2
November.....	1	14	230	149	6	4	110	19	9	24	17	16	2	6	3	3	4	2	1		3
December.....	1	16	308	207	8	4	120	24	10	23	27	3	2	7	3	3	4	3	1	1	3

The receipts from the products of the Park during the past year were :

From the pound.....	\$160 25
“ “ sale of grass.....	4,698 25
“ “ “ hay.....	50 00
“ “ “ sheep.....	1,284 75
“ “ “ wool.....	207 74
“ “ “ materials.....	219 66
“ “ “ white mice.....	1 00
“ “ “ ice.....	165 00
“ “ “ guinea pigs.....	2 00
“ “ “ ducks.....	4 38
“ “ “ cabbage.....	83 20
“ license to sell refreshments.....	9,613 02
“ “ “ hire skates.....	250 00
“ “ “ “ ice chairs.....	300 00
“ “ “ “ boats.....	1,000 00
“ rent of house on the Park.....	212 00
For removing broken vehicles to the Arsenal.....	73 00
	<hr/>
	\$18,325 25

There has also been received the sum of \$2,102 43 as interest on the deposits of the funds of the Board in the National Bank of Commerce in New York.

A very unusual shower of rain occurred on the 8th day of August, lasting one hour and forty-six minutes, accompanied by continued thunder and lightning, on which occasion 3,325 inches of rain fell.

On the same day several other showers occurred,

lasting together two hours and forty-two minutes, giving a fall of rain of 0,705 inches.

The damage done to the roads and walks by these rains occasioned a considerable increase of expenditure for repairs.

The repairs of the roads and walks for the year have required the use of 7,386 cubic yards of gravel, being less by 3,614 yards than was used in 1867.

4,287 hand cart loads of manure have been gathered from the roads, and deposited for use in fertilizing of the lawns and shrubbery.

The Board are watching with interest the development of various processes for a coating for roads and walks, that will free them from the damaging influence of sudden rains.

The walks of the city of Paris, composed of a bituminous compound, seem to answer an admirable purpose in that climate, and asphalt has been and is very extensively used in the roadways.

It is applied by a company known as The Compagnie Gnérale des Asphaltes, and makes in many respects the best roadway known.

This asphalt is a very different substance from the bituminous compound that it is generally supposed to resemble. Its chief ingredient is derived from a rock brought either from Seyssel, France, and Val-de-Travers, in Switzerland, or near the confines of Switzerland, which, after being roasted in a furnace, is used to form the surface of a road, the bed of which has been formed of concrete.

It is very smooth and almost noiseless, and very agreeable to move upon, and after it is laid has no perceptible smell. The criticism is made that it is slippery for horses to travel on.

The Board has taken measures to have experiments made in this city, to ascertain whether this material can be made useful in this climate.

The transportation of the material will probably prove too expensive to warrant its use here. It is not improbable that a similar material will be found so conveniently situated as to render its use practicable in this country.

In the administration of the streets of Paris, system, neatness, and vigor prevails as a rule ; efforts are

constantly made to enhance the attractiveness of the city, and ingenuity is taxed to discover and put to use new methods of rendering the streets and public places agreeable and acceptable to those who for this reason seek from all parts of the world the enjoyments of this first of European Capitals.

The immense carriage use of the Park wears the roads rapidly ; as these roads have for several years afforded about the only comfortable means of passing to and from the north end of the Island and Westchester to the city, they have been much resorted to, and while with the growth of the city, the use of the roads will be increased by Park travel, yet when any one avenue is put in travelable condition, it will tend to draw from the Park that class of business travel that seeks direct passage through the city.

The musical entertainments at the Park continue to meet a decided popular approval, and they are believed to be unequalled anywhere in excellence of the performance, and in the general surroundings. There have been twenty one of them this year, as follows :

1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.
July 9	Aug. 25	Aug. 10	June 7	May 30	June 4	June 3	June 2	June 8	June 6
" 23	Sept. 1	" 17	" 14	June 6	" 11	" 10	" 9	" 15	" 13
" 30	" 8	" 24	" 21	" 13	" 18	" 17	" 16	" 22	" 20
Aug. 6	" 15	" 31	" 28	" 20	" 25	" 24	" 23	" 29	" 27
" 20	" 22	Sept. 7	July 5	" 27	July 2	July 1	" 30	July 4	July 4
" 27	" 29	" 14	" 12	July 4	" 4	" 4	July 4	" 6	" 11
Sept. 3	Oct. 13	" 21	" 19	" 11	" 9	" 8	" 7	" 13	" 18
" 10	" 27	" 28	" 26	" 18	" 16	" 15	" 14	" 20	" 25
Oct. 1	Nov. 18	Oct. 5	Aug. 2	" 25	" 23	" 29	" 21	" 24	Aug. 1
" 15		" 12	" 9	Aug. 1	" 30	Aug. 5	" 28	" 27	" 12
			" 16	" 8	Aug. 6	" 12	Aug. 4	" 31	" 25
			" 23	" 15	" 13	" 16	" 11	Aug. 7	" 29
			" 30	" 22	" 20	" 19	" 18	" 14	Sept. 5
			Sept. 6	" 29	" 27	" 23	" 25	" 17	" 12
			" 13	Sept. 5	Sept. 3	" 26	Sept. 1	" 21	" 19
			" 20	" 12	" 10	" 30	" 8	" 24	" 26
			" 27	" 26	" 17	Sept. 2	" 15	" 28	Oct. 3
			Oct. 4	Oct. 3	" 24	" 6	" 22	" 31	" 10
			" 18	" 10	Oct. 1	" 9	" 29	Sept. 4	" 17
			" 25	" 17	" 8	" 13	Oct. 6	" 7	" 24
			Nov. 1		" 15	" 16	" 13	" 11	" 31
					" 22	" 20	" 20	" 14	
					" 29	" 23	" 27	" 18	
					Evenings	" 27	" 27	" 21	
					July 6	" 30	" 30	" 25	
					" 13	Oct. 4	" 28	" 28	
					" 20	" 7		Oct. 2	
						" 14		" 9	
						" 21		" 12	
						" 28		" 16	
								" 19	
								" 23	
								" 26	

TOTAL NUMBER OF MUSIC DAYS.

1859.....	10
1860.....	9
1861.....	10
1862.....	21
1863.....	20
1864.....	26
1865.....	30
1866.....	23
1867.....	33
1868.....	21

The total outlay for this music for the year was.....\$4,273 00

Of this was contributed by W. Romaine, Esq..... 10 00

Leaving a balance paid from the funds for the maintenance
of the Park of.....\$4,263 00

As in the previous year, the railway companies have not contributed to any extent to this fund.



ARCHWAY NORTH OF THE MEADOWS.

The winter amusements of the Park, the skating, sliding and curling, are participated in by large numbers of people, and the taste for these amusements has extended all over the country.

The skating days have been as follows :

1858-9.	1859-60.	1860-1.	1861-2.	1862-3.	1863-4.	1864-5.	1865-6.	1866-7.	1867-8.
1858. Dec. 29	1859. Dec. 24	1860. Dec. 14	1861. Dec. 29	1862. Dec. 22	1863. Dec. 11	1864. Dec. 21	1866. Jan. 8	1867. Dec. 15	1867. Dec. 17
1859. Jan. 3	" 25	" 15	" 30	1863. Jan. 20	" 23	" 22	" 9	" 16	" 18
" 22	" 26	" 16	" 31	" 24	" 24	" 23	" 10	" 19	" 19
" 23	" 27	" 18	1862. Jan. 1	" 25	" 25	" 24	" 11	" 20	" 20
" 24	" 28	1861. Jan. 11	" 2	" 26	" 26	" 25	" 12	" 21	" 21
" 25	" 29	Jan. 11	" 3	" 27	" 27	" 30	" 15	" 22	" 24
" 26	" 30	" 12	" 4	" 28	1864. Jan. 3	1865. Jan. 2	" 17	" 26	" 25
" 27	" 31	" 13	" 5	" 29	" 4	" 3	" 18	" 28	" 30
" 28	1860. Jan. 1	" 14	" 6	" 30	" 5	" 4	" 19	" 29	" 31
" 29	" 2	" 18	" 7	" 31	" 6	" 5	" 21	" 30	1868. Jan. 3
" 30	" 3	" 19	" 8	" 32	" 7	" 6	" 22	" 31	" 5
Feb. 10	" 4	" 20	" 9	" 33	" 8	" 7	" 23	1867. Jan. 1	" 6
" 11	" 5	" 21	" 10	" 34	" 9	" 8	" 24	" 2	" 7
" 12	" 6	" 22	" 11	" 35	" 10	" 9	" 25	" 3	" 8
" 13	" 7	" 23	" 12	" 36	" 11	" 10	" 26	" 4	" 9
" 14	" 8	" 24	" 13	" 37	" 12	" 11	" 27	" 5	" 10
" 15	" 9	" 25	" 14	" 38	" 13	" 12	" 28	" 6	" 11
" 16	" 10	" 26	" 15	" 39	" 14	" 13	" 29	" 7	" 12
" 17	" 11	" 27	" 16	" 40	" 15	" 14	" 30	" 8	" 13
Mar. 5	" 12	" 28	" 17	" 41	" 16	" 15	" 31	" 9	" 14
" 6	" 13	" 29	" 18	" 42	" 17	" 16	Feb. 1	" 10	" 15
" 7	" 14	" 30	" 19	" 43	" 18	" 17	" 2	" 11	" 16
" 8	" 15	Feb. 1	" 20	" 44	" 19	" 18	" 3	" 12	" 17
" 9	" 16	" 2	" 21	" 45	" 20	" 19	" 4	" 13	" 18
" 10	" 17	" 3	" 22	" 46	" 21	" 20	" 5	" 14	" 19
" 11	" 18	" 4	" 23	" 47	" 22	" 21	" 6	" 15	" 20
" 12	" 19	" 5	" 24	" 48	" 23	" 22	" 7	" 16	" 21
" 13	" 20	" 6	" 25	" 49	" 24	" 23	" 8	" 17	" 22
" 14	" 21	" 7	" 26	" 50	" 25	" 24	" 9	" 18	" 23
" 15	" 22	" 8	" 27	" 51	" 26	" 25	" 10	" 19	" 24
" 16	" 23	" 9	" 28	" 52	" 27	" 26	" 11	" 20	" 25
" 17	" 24	" 10	" 29	" 53	" 28	" 27	" 12	" 21	" 26
" 18	" 25	" 11	" 30	" 54	" 29	" 28	" 13	" 22	" 27
" 19	" 26	" 12	" 31	" 55	" 30	" 29	" 14	" 23	" 28
" 20	" 27	" 13	" 32	" 56	" 31	" 30	" 15	" 24	" 29
" 21	" 28	" 14	" 33	" 57	" 32	" 31	" 16	" 25	" 30
" 22	" 29	" 15	" 34	" 58	" 33	" 32	" 17	" 26	" 31
" 23	" 30	" 16	" 35	" 59	" 34	" 33	" 18	" 27	" 32
" 24	" 31	" 17	" 36	" 60	" 35	" 34	" 19	" 28	" 33
" 25	" 32	" 18	" 37	" 61	" 36	" 35	" 20	" 29	" 34
" 26	" 33	" 19	" 38	" 62	" 37	" 36	" 21	" 30	" 35
" 27	" 34	" 20	" 39	" 63	" 38	" 37	" 22	" 31	" 36
" 28	" 35	" 21	" 40	" 64	" 39	" 38	" 23	" 32	" 37
" 29	" 36	" 22	" 41	" 65	" 40	" 39	" 24	" 33	" 38
" 30	" 37	" 23	" 42	" 66	" 41	" 40	" 25	" 34	" 39
" 31	" 38	" 24	" 43	" 67	" 42	" 41	" 26	" 35	" 40
" 32	" 39	" 25	" 44	" 68	" 43	" 42	" 27	" 36	" 41
" 33	" 40	" 26	" 45	" 69	" 44	" 43	" 28	" 37	" 42
" 34	" 41	" 27	" 46	" 70	" 45	" 44	" 29	" 38	" 43
" 35	" 42	" 28	" 47	" 71	" 46	" 45	" 30	" 39	" 44
" 36	" 43	" 29	" 48	" 72	" 47	" 46	" 31	" 40	" 45
" 37	" 44	" 30	" 49	" 73	" 48	" 47	" 32	" 41	" 46
" 38	" 45	" 31	" 50	" 74	" 49	" 48	" 33	" 42	" 47
" 39	" 46	" 32	" 51	" 75	" 50	" 49	" 34	" 43	" 48
" 40	" 47	" 33	" 52	" 76	" 51	" 50	" 35	" 44	" 49
" 41	" 48	" 34	" 53	" 77	" 52	" 51	" 36	" 45	" 50
" 42	" 49	" 35	" 54	" 78	" 53	" 52	" 37	" 46	" 51
" 43	" 50	" 36	" 55	" 79	" 54	" 53	" 38	" 47	" 52
" 44	" 51	" 37	" 56	" 80	" 55	" 54	" 39	" 48	" 53
" 45	" 52	" 38	" 57	" 81	" 56	" 55	" 40	" 49	" 54
" 46	" 53	" 39	" 58	" 82	" 57	" 56	" 41	" 50	" 55
" 47	" 54	" 40	" 59	" 83	" 58	" 57	" 42	" 51	" 56
" 48	" 55	" 41	" 60	" 84	" 59	" 58	" 43	" 52	" 57
" 49	" 56	" 42	" 61	" 85	" 60	" 59	" 44	" 53	" 58
" 50	" 57	" 43	" 62	" 86	" 61	" 60	" 45	" 54	" 59
" 51	" 58	" 44	" 63	" 87	" 62	" 61	" 46	" 55	" 60
" 52	" 59	" 45	" 64	" 88	" 63	" 62	" 47	" 56	" 61
" 53	" 60	" 46	" 65	" 89	" 64	" 63	" 48	" 57	" 62
" 54	" 61	" 47	" 66	" 90	" 65	" 64	" 49	" 58	" 63
" 55	" 62	" 48	" 67	" 91	" 66	" 65	" 50	" 59	" 64
" 56	" 63	" 49	" 68	" 92	" 67	" 66	" 51	" 60	" 65
" 57	" 64	" 50	" 69	" 93	" 68	" 67	" 52	" 61	" 66
" 58	" 65	" 51	" 70	" 94	" 69	" 68	" 53	" 62	" 67
" 59	" 66	" 52	" 71	" 95	" 70	" 69	" 54	" 63	" 68
" 60	" 67	" 53	" 72	" 96	" 71	" 70	" 55	" 64	" 69
" 61	" 68	" 54	" 73	" 97	" 72	" 71	" 56	" 65	" 70
" 62	" 69	" 55	" 74	" 98	" 73	" 72	" 57	" 66	" 71
" 63	" 70	" 56	" 75	" 99	" 74	" 73	" 58	" 67	" 72
" 64	" 71	" 57	" 76	" 100	" 75	" 74	" 59	" 68	" 73
" 65	" 72	" 58	" 77	" 101	" 76	" 75	" 60	" 69	" 74
" 66	" 73	" 59	" 78	" 102	" 77	" 76	" 61	" 70	" 75
" 67	" 74	" 60	" 79	" 103	" 78	" 77	" 62	" 71	" 76
" 68	" 75	" 61	" 80	" 104	" 79	" 78	" 63	" 72	" 77
" 69	" 76	" 62	" 81	" 105	" 80	" 79	" 64	" 73	" 78
" 70	" 77	" 63	" 82	" 106	" 81	" 80	" 65	" 74	" 79
" 71	" 78	" 64	" 83	" 107	" 82	" 81	" 66	" 75	" 80
" 72	" 79	" 65	" 84	" 108	" 83	" 82	" 67	" 76	" 81
" 73	" 80	" 66	" 85	" 109	" 84	" 83	" 68	" 77	" 82
" 74	" 81	" 67	" 86	" 110	" 85	" 84	" 69	" 78	" 83
" 75	" 82	" 68	" 87	" 111	" 86	" 85	" 70	" 79	" 84
" 76	" 83	" 69	" 88	" 112	" 87	" 86	" 71	" 80	" 85
" 77	" 84	" 70	" 89	" 113	" 88	" 87	" 72	" 81	" 86
" 78	" 85	" 71	" 90	" 114	" 89	" 88	" 73	" 82	" 87
" 79	" 86	" 72	" 91	" 115	" 90	" 89	" 74	" 83	" 88
" 80	" 87	" 73	" 92	" 116	" 91	" 90	" 75	" 84	" 89
" 81	" 88	" 74	" 93	" 117	" 92	" 91	" 76	" 85	" 90
" 82	" 89	" 75	" 94	" 118	" 93	" 92	" 77	" 86	" 91
" 83	" 90	" 76	" 95	" 119	" 94	" 93	" 78	" 87	" 92
" 84	" 91	" 77	" 96	" 120	" 95	" 94	" 79	" 88	" 93
" 85	" 92	" 78	" 97	" 121	" 96	" 95	" 80	" 89	" 94
" 86	" 93	" 79	" 98	" 122	" 97	" 96	" 81	" 90	" 95
" 87	" 94	" 80	" 99	" 123	" 98	" 97	" 82	" 91	" 96
" 88	" 95	" 81	" 100	" 124	" 99	" 98	" 83	" 92	" 97
" 89	" 96	" 82	" 101	" 125	" 100	" 99	" 84	" 93	" 98
" 90	" 97	" 83	" 102	" 126	" 101	" 100	" 85	" 94	" 99
" 91	" 98	" 84	" 103	" 127	" 102	" 101	" 86	" 95	" 100
" 92	" 99	" 85	" 104	" 128	" 103	" 102	" 87	" 96	" 101
" 93	" 100	" 86	" 105	" 129	" 104	" 103	" 88	" 97	" 102
" 94	" 101	" 87	" 106	" 130	" 105	" 104	" 89	" 98	" 103
" 95	" 102	" 88	" 107	" 131	" 106	" 105	" 90	" 99	" 104
" 96	" 103	" 89	" 108	" 132	" 107	" 106	" 91	" 100	" 105
" 97	" 104	" 90	" 109	" 133	" 108	" 107	" 92	" 101	" 106
" 98	" 105	" 91	" 110	" 134	" 109	" 108	" 93	" 102	" 107
" 99	" 106	" 92	" 111	" 135	" 110	" 109	" 94	" 103	" 108
" 100	" 107	" 93	" 112	" 136	" 111	" 110	" 95	" 104	" 109
" 101	" 108	" 94	" 113	" 137	" 112	" 111	" 96	" 105	" 110
" 102	" 109	" 95	" 114	" 138	" 113	" 112	" 97	" 106	" 111
" 103	" 110	" 96	" 115	" 139	" 114	" 113	" 98	" 107	" 112
" 104	" 111	" 97	" 116	" 140	" 115	" 114	" 99	" 108	" 113
" 105	" 112	" 98	" 117	" 141	" 116	" 115	" 100	" 109	" 114
" 106	" 113	" 99	" 118	" 142	" 117	" 116	" 101	" 110	" 115
" 107	" 114	" 100	" 119	" 143	" 118	" 117	" 102	" 111	" 116
" 108	" 115	" 101	" 120	" 144	" 119	" 118	" 103	" 112	" 117
" 109	" 116	" 102	" 121	" 145	" 120	" 119	" 104	" 113	" 118
" 110	" 117	" 103	" 122	" 146	" 121	" 120	" 105	" 114	" 119
" 111	" 118	" 104	" 123	" 147	" 122	" 121	" 106	" 115	" 120
" 112	" 119	" 105	" 124	" 148	" 123	" 122	" 107	" 116	" 121
" 113	" 120	" 106	" 125	" 149	" 124	" 123	" 108	" 117	" 122
" 114	" 121	" 107	" 126	" 150	" 125	" 124	" 109	" 118	" 123
" 115	" 122	" 108	" 127	" 151	" 126	" 125	" 110	" 119	" 124
" 116	" 123	" 109	" 128	" 152	" 127	" 126	" 111	" 120	" 125
" 117	" 124	" 110	" 129	" 153	" 128	" 127	" 112	" 121	" 126
" 118	" 125	" 111	" 130	" 154	" 129	" 128	" 113	" 122	" 127
" 119	" 126	" 112	" 131	" 155	" 130	" 129	" 114	" 123	" 128
" 120	" 127	" 113	" 132	" 156	" 131	" 130	" 115	" 124	" 129
" 121	" 128	" 114	" 133	" 157	" 132	" 131	" 116	" 125	" 130
" 122	" 129	" 115	" 134	" 158	" 133	" 132	" 117	" 126	" 131
" 123</									

From which it will be seen that there were more days of skating in the winter of 1867-8 than in any year since the Park opened.

The boat service has been conducted as usual.

Two new boats have been put on the Lake.

The extent of this service is as follows :

			CALL BOATS.	PASSAGE BOATS.
For the week ending	April	4th.....	14	44
"	"	" 11th.....	0	0
"	"	" 18th.....	13½	64
"	"	" 25th.....	127	505½
"	"	May 2d.....	213	1,074½
"	"	" 9th.....	241½	1,306
"	"	" 16th.....	264½	1,255½
"	"	" 23d.....	256	1,343½
"	"	" 30th.....	284	1,172
"	"	June 6th.....	905½	4,032
"	"	" 13th.....	596½	3,401½
"	"	" 20th.....	1,221	4,806
"	"	" 27th.....	1,049	3,794½
"	"	July 4th.....	1,090½	4,954
"	"	" 11th.....	831	3,010
"	"	" 18th.....	891½	3,104½
"	"	" 25th.....	739	2,474½
"	"	Aug. 1st.....	1,159½	4,132½
"	"	" 8th.....	808½	2,757½
"	"	" 15th.....	1,213½	4,698
"	"	" 22d.....	1,294½	4,575½
"	"	" 29th.....	1,527	4,724
"	"	Sept. 5th.....	776½	2,603½
"	"	" 12th.....	863	4,164½
"	"	" 19th.....	599½	2,226
"	"	" 26th.....	209	726½
"	"	Oct. 3d.....	187½	618
"	"	" 10th.....	493½	1,628½
"	"	" 17th.....	357	1,601½
"	"	" 24th.....	183½	494½
"	"	" 31st.....	211½	655
"	"	Nov. 7th.....	43½	244½
"	"	" 14th.....	162	603
"	"	" 21st.....	89	271½
"	"	" 28th.....	11	41½
			19,027	73,108

The total revenue derived from these passengers by the contractor, was \$11,123.50.

Total expense of conducting the boats, \$9,447.30.

The plan devised several years since, by which the children of the schools were allowed the use of the play-grounds of the Park, has proved very successful and acceptable.

Any child attending the public schools of the city may have the privilege of the play-grounds, upon application to the Commissioners of the Park, with a certificate from his or her teacher of the punctual attendance of the applicant upon the school and of good character.

More than twenty thousand children have played this year, and the grounds have often been filled to overflowing.

On three days of the week, Monday, Thursday, and Saturday, the grounds are open for this purpose, and the scene of activity and enjoyment of hundreds of children on the lawns attract numerous observers.



BOYS' PLAY GROUND.

Croquet play upon the girls' ground has been initiated, and there is no doubt that its advantages will be sought by continually increasing numbers.

Applications are still made for the privilege of the play-grounds by adults, both male and female, but the Board see no sufficient reason to depart from the rules in this respect that they have adopted for the use of these grounds.

By the method adopted of confining the use of the grounds to school children, the practice of adult clubs

of match games, and the objectionable features that have become the frequent attendant of these games, have been effectually prevented.

Several swings have been erected, also, for children's use, and are often occupied to their full capacity.

The Board will continue to use its efforts to render the Park an interesting, safe, and pleasant place of amusement and entertainment to children of all ages, and to develop the practice of those out-of-door exercises that will be beneficial to them and to the whole community.

In the arrangements of the Board to this end, no exclusiveness is allowed; they are especially intended for the children of the whole people.

The "Springs," a structure at an interesting point of the Park, north of the "Green," is so far complete as to admit of public use. It has been considerably frequented by visitors. Great care is taken that its various waters are of the best quality.

It is the custom of many of the first physicians of the city to send their patients thither, to add to the effects of the waters the benefit of the air and exercise.



ARBOR EAST OF PLAY-GROUND.

Thermometrical and barometrical observations have been continued throughout the year. The results are condensed in the tables accompanying this report. Abstracts of these results are published weekly in several of the city papers, and are forwarded to other institutions of similar character. The same tables comprehend statistics of the force of the wind, of moisture, and of the daily fall of rain and snow.

The following shows the rain fall of the years 1867 and 1868 :

		Days.	Hours.	Minutes,	
1867.....	132 days' duration....	31	15	33....	depth, 45.10 in.
1868.....	140 “ 	31	15	49....	“ 50.421 “

It will be observed that the fall of rain during the present year was greater than of the previous year, which was considered large, and that the number of inches that fell in the months of August and September was quite unusual. The amount of rain that fell in the month of September, 1868, was more than eleven times as much as fell in September, 1867. The snow-storms of the winter 1867-8 were frequent, as compared with the previous winter.

In the winter of 1866-7 there were.....	36 storms.
“ “ 1867-8 “	44 “

The Board hope soon to rely solely on self-registering instruments for this class of observations.

For the next year efforts will be made for a development of the operations of this department, which it is hoped will tend to the further extension of its usefulness.

The Chamber of Commerce of this City has kindly presented to the Board one of Hough's automatic self-registering barometers, as a contribution to the meteorological department.

The Commissioners have yet neither the facilities nor

the equipment necessary for astronomical observations ; they hope to be able to proceed during the coming year to establish an astronomical observatory that will eventually rank with any existing establishment of this character. It is intended that its range of observations shall combine those of a higher scientific character, like those of London, Paris and Pulkova, with that class of practical facilities needed in a commercial community that have rendered the Observatory at Liverpool an institution of high character, eminently useful to navigators from all parts of the world.

The standing of the City of New York, and the convenience of her merchants, demand the establishment within its limits of a public Observatory, with all the necessary facilities, that shall be second to none in the world.

Private observatories have been erected and are maintained in this City by gentlemen interested in the advancement of science; and the subject of erecting a public Observatory has been agitated for half a century, and among scientific and intelligent men, the importance of such an institution is fully conceded.

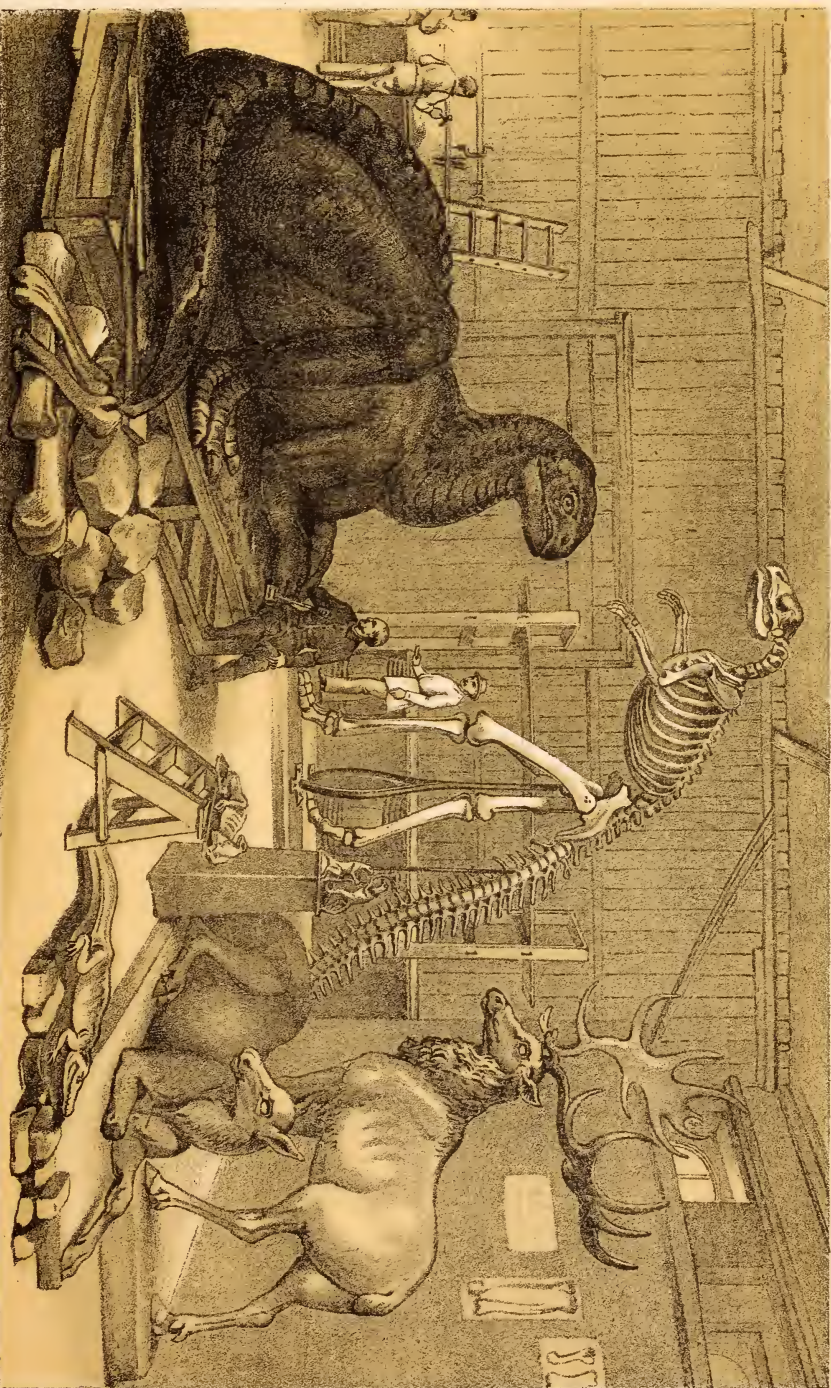
The operations of observatories of this character are in every way elevating to the country; they furnish the only sure means of determining time with precision, and of accurately correcting chronometers, which are almost exclusively relied on at sea for ascertaining the longitude from day to day.

By extending a knowledge of the heavenly bodies, which are the unchanging beacons of the mariner on every water, it directly contributes to the security of commerce.

Its great office being to bring to light new truths, it stimulates the spirit of invention, discovery and commercial enterprise, no less than educational reform.

The Board has availed itself of the stay in this country of Mr. B. WATERHOUSE HAWKINS, whose reconstructions of extinct animals of the old world have been so well received in England, to engage his services for the restoration, for the museum of the Park, of a group of the animals of this continent.

These works are now in progress. The correspondence on this subject, hereto appended, will more fully indicate the character and extent of the proposed undertaking.



The New York Printing Co.

THE PALAEOLOGICAL STUDIO AT THE CENTRAL PARK MUSEUM, WITH MODELS OF
ANIMALS OF ANCIENT TIMES, NOW BEING RESTORED FROM THE FOSSILS

BY WATERHOUSE HAWKINS, F. R. S. F. G. S. &c. &c.

The Zoological Gardens have made but little actual progress. The streets surrounding the borders of the ground where they are to be located are now, with the exception of the Eighth avenue, being regulated. The unsettled condition of the grade of this avenue, affecting the streets that abut upon it, is one chief occasion of the delay of the work of improvement ; and another is the want of a sewer to connect those of this part of the Park with an outlet to the River.

Forces are now, while the ground is frozen, engaged in excavating for the Ponds, as, if it is not done at this season, it cannot be done without great expense of pumping, till the sewer is completed that is to drain it, which it is hoped will be within the coming year.

Animals in great variety are added to the collection of the Park, by public spirited citizens, from all parts of the country, and although their accommodations are not yet all the Commissioners could wish, yet, even in their present quarters, these specimens afford great amusement to a very large number of people. Among the principal contributions of this character are—a fine specimen of the American buffalo, forwarded by the Officers of the Seventh U. S. Cavalry from their head-

quarters, Fort Leavenworth, Kansas ; a toucan, presented by EDWARD S. DE LUCE, Chief Engineer, U. S. Navy.

Col. E. H. DURFEE has presented a fine specimen of the American black bear.

WASHINGTON IRVING, Paymaster U. S. Navy, has presented a very curious and interesting specimen of the cinnamon bear, from Singapore, India.

Gen. STRUM presented a fine deer, Capt. GEORGE B. SLOCUM a white-lipped peccary, and Brev. Brig. Gen. N. B. McLAUGHLAN a fine Mexican lion, two years old, captured on the upper Rio Grande.

T. C. DURANT, Esq., has presented a magnificent specimen of the grizzly bear, brought by him from the Rocky Mountains.

COUNT DE MIRANDA has added to the collection of birds at the Park a fine Brazilian ostrich, and CHARLES E. GRISWOLD, of this city, a pair of South American ostriches.

CHARLES J. WERNER, Esq., has presented a pair of Rasse cats, very rare animals, brought by him from the island of Java.

AUGUSTUS A. SILVER, Esq., U. S. Commercial Agent at St. Paul de Loando, Africa, has very kindly donated to the Park a beautiful specimen of the Angola leopard.

HENRY KEEP, Esq., has added a pair of prairie dogs.

JOSHUA JONES, Esq., has presented during the year a number of field and Java sparrows and chaffinches.

Among the most valuable of these donations are those from officers of the army and navy, from their respective stations.

An examination of the principal Zoological collections of Europe, made under the auspices of the Board during the year, including those of Dublin, London, Paris, Antwerp, Rotterdam, Amsterdam, and Brussels, has resulted in gathering a mass of practical information that will be of great value in the arrangement of the proposed Zoological Garden, as well in regard to the methods of food as to the care of the animals.

The degree of attention that is given to the domestication and propagation of a great variety of foreign animals in the gardens of Europe is remarkable; one garden will attain success in breeding a specific animal that others aspire to in vain.

The Park animals in captivity are generally in a healthy condition, and the animals wholly or in part at liberty are in good condition. The swans have increased in numbers, and the Commissioners had the pleasure, in answer to applications, to furnish a few of these favorite birds to the cities of Chicago and Troy. The swans and other water fowl have been sometimes attacked and injured by savage dogs that get into the Park at night.

The smaller birds, songsters and others, increase in the Park; the native quail, the California quail, the guinea hen, the pea fowl, the sparrow, are all here found, as well as those voracious birds, the hawk and owl, by which the smaller birds are sometimes pursued and destroyed.

In an Appendix is given a full list of native birds that appear with more or less frequency in the Park.

The flocks of sheep, the varieties of cattle, the deer, the elk, the Western buffalo, and the Cape buffalo, the tapir, the camel, are in good condition.

The Board hope next year to establish a *Vacherie*, in which may be found fine specimens of all the different

breeds of milch cattle that can be got together from all parts of the world. Such an exhibition would be a source of great interest to farmers and agriculturists visiting the city, and perhaps do something towards introducing new breeds and improving the stock of our own country.

The products of the sheep, which are so attractive as they graze upon the lawns, nearly pays the expense of their care and feeding ; the sales of them during the year amounted to \$1,284 75.



SHEEP ON THE GREEN.

The donations of antiquities and curiosities made to the Board already form an interesting museum.

The gallery of statuary at the Chapel at St. Vincent is much visited.

The Board have the pleasure of acknowledging the presentation of a statue of the Indian Hunter in bronze, the work of J. Q. A. WARD, by several of our well known art encouraging citizens, the correspondence relating to which is appended to this report.

It is under those forms of enlightened government alone that are symmetrical in their organization, acting with unity of purpose, through successive centuries—that the energies of the community are brought out, and that its powers in every department are effectively assembled and put to use. The result of the action of divers bodies having the same purpose, but working in different directions, is to weaken the influence of all,

With us the number of societies ostensibly established for the encouragement of a particular branch of science, are so numerous as to weaken each other. The expense of administering each is often so disproportionate to the means at its disposal as to cripple and destroy its vitality.



J. A. Ward, Sculpt.

Rockwood, Photo.

THE INDIAN HUNTER.

It is equally important, and equally worthy the efforts of the statesman to organize and economize the intellectual energies of a people, as it is to arrange effectively its physical agencies ; and as no wise provision for the execution of laws through physical methods admits of a diversity of administration, so no direction of intellectual forces can be efficient without systematic arrangement.

The founding and encouraging of nurseries of science and libraries, and galleries of art by any community, are all indications of the degree of culture and advancement.

There is among the people of this city a very deep interest in these subjects, that sort of interest that could be easily directed towards practical measures for the continued increase of this class of institutions ; much zeal and energy is now wasted by reason of the want of a proper organization. A body that by adequate legislative enactments has an assurance of that continuous succession and endurance that is essential to the gathering of collections of this character, and to their growth and preservation, would, if rightly administered, be a very great aid in this work.

It is a matter of no small importance and of no slight difficulty to constitute a body that will consecutively from generation to generation, conduct the administration of these establishments on such a plan as would afford all the use that the general public may desire, and that more intimate use of their collections that is essential to render them of value to the community through the medium of men engaged in scientific research.

In short, an agency is very desirable that shall concentrate interests in these establishments, and so conduct them that the public shall be willing to support and encourage them at the same time for public gratification and for scientific research.

The Board has taken some measures to introduce into the Park the various kinds of bee that experience has shown to be valuable for the production of honey. An amateur bee-keeper of this city, of experience, has kindly presented three colonies of Italian bees.

In the construction of hives they are to be arranged so as to afford opportunity for the public to observe with safety the operations of this valuable insect.

The extent of attention devoted to bee culture in Europe is quite remarkable and perhaps not generally

known. A journal devoted entirely to bee culture has been published in Prussia for over twenty-five years; a similar journal has been published in Paris for thirteen years, and innumerable attempts at constructing hives have brought them to great perfection. By means of an invention in use in Germany, the honey is thrown from the comb, and the cells being returned empty to the bee, it proceeds to re-fill it.

Artificial honey-comb, having the advantage in some particulars over the natural comb, is now manufactured in Switzerland, which the bee fills with its luxurious deposit as naturally as though it were the storehouse of its own construction.

Nothing has occurred during the year to disturb good order. The number of arrests is less than the previous year, and were for the causes shown in the following tables :

The number of Arrests on the Park for the past six years was as follows :

MONTHS.	1863.	1864.	1865.	1866.	1867.	1868.
January	18	2	8	1	5	8
February	5	6	11	4	2	10
March.....	5	10	1	6	5	12
April.....	8	7	3	10	7	11
May.....	13	30	17	17	19	8
June.....	11	8	11	10	14	15
July.....	3	18	16	17	13	11
August.....	1	17	15	17	15	9
September.....	5	13	11	9	20	13
October	5	7	6	9	19	2
November.....	7	6	7	7	3	6
December.....	5	6	9	3	5	1
Total.....	86	130	115	110	127	106

These Arrests were for the following causes:

CAUSES.	1863.	1864.	1865.	1866.	1867.	1868.
Fast driving.....	47	63	60	52	57	58
Fast riding.....	1	5	3	1	0	2
Breaking shrubs and flowers.....	9	2	0	2	1	1
Assault and battery.....	1	6	6	1	5	12
Thieving.....	1	6	1	2	2	0
Disorderly conduct.....	23	48	34	31	41	31
Interfering with an officer... ..	0	0	0	4	0	1
Insane persons.....	0	0	0	3	2	0
Impersonating an officer.....	0	0	0	1	0	0
Other offences.....	4	0	11	13	19	1
Total.....	86	130	115	110	127	106

The penalties imposed upon those arrested and taken before the Magistrate during the year, were as follows:

Fined ten dollars and less, each.....	57
Bound over for trial, or to keep the peace.....	4
Sent to the House of Correction, or Asylum.....	4
Committed for ten days each.....	
Discharged with reprimand, or otherwise.....	36

Total..... 106

Seventy-four children have been returned to their friends, their homes, or sent to the police stations, during the year.

*The Assessed Value of the Three Wards surrounding the Park,
for thirteen years, is as follows:*

WARD.	1856.	1857.	1858.	1859.	1860.
Twelfth	\$8,149,360	\$8,134,013	\$8,476,890	\$10,062,725	\$11,857,114
Nineteenth	8,041,183	8,558,624	10,971,775	12,621,894	16,830,472
Twenty-second	10,239,022	10,489,454	11,563,506	13,261,025	14,775,440
Total	*\$26,429,565	\$27,182,091	\$31,012,171	\$35,945,644	\$43,463,026

WARD.	1861.	1862.	1863.	1864.	1865.
Twelfth	\$12,454,375	\$13,100,385	\$14,134,825	\$15,493,575	\$18,134,805
Nineteenth	16,986,152	17,903,137	19,003,452	20,462,607	23,070,890
Twenty-second	17,666,866	18,041,857	18,281,222	18,756,276	19,824,265
Total	\$47,107,393	\$49,045,379	†\$51,419,499	\$54,712,458	\$61,029,960

	WARD.	1866.	1867.	1868.
	Twelfth-. . . .	\$18,381,650	\$24,940,737	\$28,143,005
	Nineteenth..	37,636,050	46,249,340	53,608,040
	Twenty-sec'd	24,052,715	30,915,240	36,175,185
	Total.	\$80,070,415	\$102,105,317	\$117,926,230 \$26,429,565
Showing a total increased valuation in these three wards from 1856 to 1868 of.				\$91,496,565

* The area occupied by the Park to One Hundred and Sixth street was dropped from the assessment books this year, the last tax collected on it being that of 1855.

† The area occupied by the Park from One Hundred and Sixth to One Hundred and Tenth street was dropped from the assessment books this year.

The rate of tax for the year 1868 is 2.66, yielding on the increased valuation above stated an increased tax of \$2,433,811.29.

The total expenditure for construction from May	
1, 1857, to January 1, 1869, is.....	\$5,435,121 23
The cost of the land of the Park to the city is..	5,028,844 10
	<hr/>
Total cost of Park up to this time.....	\$10,463,965 33
	<hr/>
Total increased tax in three wards.....	\$2,433,811 29
The annual interest on the cost of	
the land and improvement of the	
Park up to this time, at six per	
cent.....	
	\$627,837 90
Deduct one per cent. on \$399,300 of	
the above stock issued at five per	
cent.....	
	3,993 00
	<hr/>
	623,844 90
	<hr/>
Excess of increased tax in three wards over in-	
terest on cost of land and improvements.....	
	\$1,809,966 39
	<hr/>
	<hr/>



THE CASCADE.

3,150 loads of grass were sold during the season, yielding \$4,698.25. In addition to this sufficient hay was stored for the use of the working stock and the animals of the Zoological Gardens.

6,876 evergreen and deciduous trees and shrubs have been planted during the year, most of which were taken from the nurseries and from the thickening plantations of the Park.

6,192 bulbous and herbaceous plants have been planted. The green-house at St. Vincent Gardens is well filled with plants mostly presented by our citizens; among them are many very valuable specimens.

Among those plants worthy of especial notice which have been cultivated on the Park during the year, are the

Datura Fastuosa, fl. pl., characterized by large conspicuous flowers, bearing at one time last summer not less than one hundred and forty, which, with the large leaves, produce a rich tropical effect.

Erythrina Crista Galli, known as the coral tree. An elegantly shaped plant with numerous crimson colored flowers, which are renewed throughout the season.

Trichosanthes Scabra. A very ornamental climbing plant, with large palmate leaves and delicate star-like flowers, producing several snake-like fruits of about three feet in length.

Solanum Aviculare. A highly ornamental leaf plant, bearing large purple flowers and scarlet berry-like fruits.

Calladium Esculentum. The leaves of this plant attain the size of from 3 to 4 feet. The flowers are comparatively small in proportion, and of a dirty yellow color. One of the most effective plants in the flower garden.

Humea Elegans. This plant, though not very new, deserves a place in every flower garden on account of its rich foliage and graceful spikes of delicate brownish-red flowers.

Melianthus Majus is also a very showy leaf plant, peculiar from its silvery aspect.

Acanthus Mollis. The beautifully shaped leaves of this plant have been frequently copied in ancient as well as modern architecture as one of the richest ornaments. The flowers are very showy. It is one of the finest leaf plants in cultivation.

Arundo Donax. A tall growing grass from South Europe.

Gynerium Argentum. Pampas grass, S. A.

Panicum Virgatum and *Saccharum Officinarum*, and *Zea Mais, fol. variegatis*, the striped maize from Japan, which grouped together with the above, produce a striking effect.



ENTRANCE TO THE CAVE.

Efforts were made to contract for the sale of the ice from those portions of the Park water not required for skating, and although some ice was sold, yet the expense of ground in the city for the very large structures that are required for storing quantities that would be likely

to attract the attention of contractors, renders it doubtful whether the ice can be sold on a large scale at rates to compete with ice produced in the country. Doubtless some ice can annually be disposed of.

It is desirable that some less expensive power should be obtained for the compression of the fresh material used in grading the new avenues under improvement.

The construction of a steam-roller has been ordered on a plan that has been tried and found to work satisfactorily.

The Legislature, at its last session, passed an Act authorising the Commissioners of the Park to set apart and appropriate to the New York Historical Society, upon such conditions as they may deem expedient, such portions of the grounds of the Central Park lying between the Fifth avenue and a line parallel therewith, and not exceeding three hundred feet distant westerly therefrom, and between the northerly line of Eighty-first street and the southerly line of Eighty-fourth street, continued westerly at right angles with said avenue, as the Commissioners may determine to be necessary and proper for the purpose of establishing and maintaining therein by the said society, a museum of history, antiquities and art.

The Board is not aware that the Historical Society has yet taken measures toward the establishment of this institution.

The Act of 1862, by which the Commissioners of the Park were authorized to set apart certain grounds about the old arsenal building for a similar purpose, is repealed by this Act of 1868.

Your Honorable Body, on the 9th of November, passed certain preamble and resolutions giving the iron bridge over Broadway, at Fulton street, to the Commissioners of the Central Park for erection on such portion of the Park as the Commissioners might deem most advantageous or desirable.

The Commissioners of the Park expressed their readiness to receive the bridge and to use it to the best advantage, when opportunity offered, but it has not yet been delivered to them.

The Commissioners of the Park were entrusted, more than ten years ago, with the execution of works, without any parallel in this country. In the execution of these works, the Commissioners of the Park recognize with pleasure the mutual comity that has long characterized official relations with the Common Council of the city.

Without it the various works under the charge of the Commissioners, that it is hoped are to result beneficially to the whole city, must have been greatly retarded.

In the various public excitements of the past few years, the Commissioners of the Park have not allowed any influence to be exercised over those in their employ by which perfect independence in their exercise of the elective franchise could be interfered with.

Those under them, of every class and degree, have, as they chose, cast their ballots for such measures and men as they saw fit, without any attempt at control or influence by the Park, or by any person or agency in their behalf.



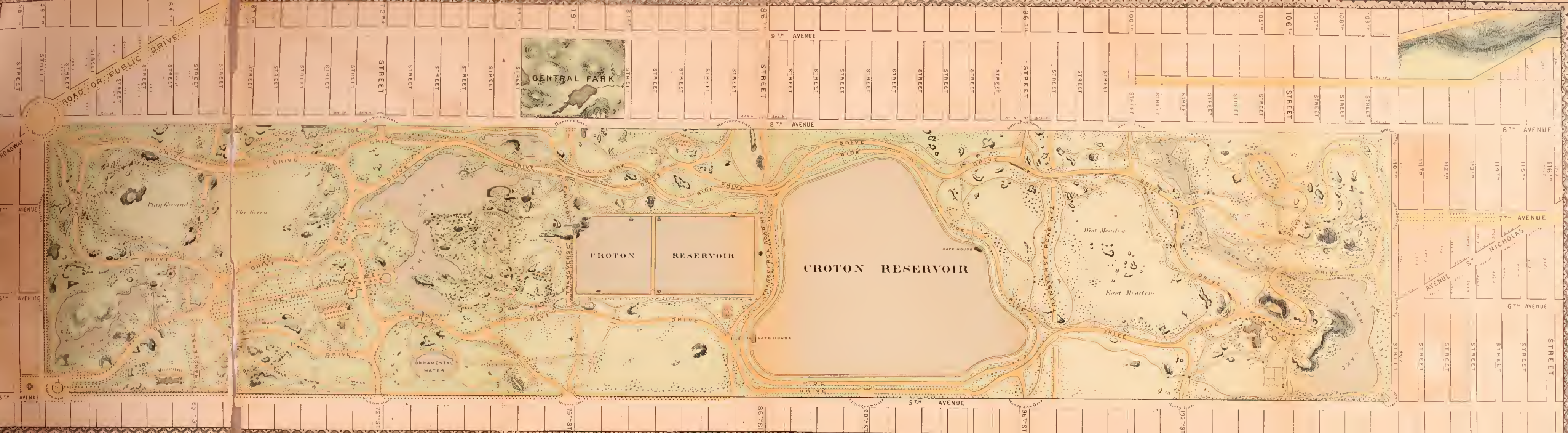
THE LOCH.

In concluding this report, the Commissioners of the Central Park call attention, with feelings of satisfaction, to the initiation and prosecution over the whole country of public works similar in character to those in which they have been engaged, and in which your Honorable Body has so kindly co-operated.

There is scarcely a city of magnitude in this country that has not provided, or taken measures to provide, a Park for the pleasure of its citizens. Brooklyn, our neighbor, has one, that differing in its characteristics from our own, yet promises to be of great attractiveness.

Baltimore has laid out and improved its Park under the enlightened action of its Commissioners. Philadelphia has already secured grounds of great extent ; enlightened citizens throughout the country already perceive the desirability of procuring conveniently situated pleasure grounds that will accommodate present and future generations, while the necessary space can be acquired within the limits at a reasonable cost ; and the subject is under discussion in Providence, Albany, Troy, Cincinnati, Pittsburg, Chicago, St. Louis and Louisville.

Municipalities of various extent have also been stimulated to the discussion of the subject of spacious and



convenient thoroughfares, and to their ornamentation, and also to the consideration of the importance of providing for the growth of cities and systematic pre-arranged plans capable of execution as future years may seem to require.

It is not difficult in these movements to perceive the influence of the works executed and now in course of execution in this city.

OPERATIONS OUTSIDE OF THE PARK.

Under various laws of the Legislature the execution of several works, which are not within the limits of the Park, have been devolved on the Board ; the progress made during the past year may be generally stated as follows :

EIGHTY-FIRST STREET.

The regulating and grading of the south half of this street, from the Eighth to the Ninth avenue, including also filling out to the same grade an additional width of twenty feet south of and adjoining Eighty-first street, is nearly completed.

THE SEVENTH AVENUE, NORTH OF THE PARK.

The regulating and grading of this avenue to the width of one hundred and fifty feet has made consider-

able progress during the year, about 99,480 cubic yards of rock and 8,600 cubic yards of earth have been excavated and removed ; making a total of work done since it was begun of 131,280 cubic yards of rock, and 53,600 cubic yards of earth removed.

THE SIXTH AVENUE, NORTH OF THE PARK.

The report of the Commissioners of Estimate and Assessment, in the matter of opening this part of the avenue to the width of one hundred and fifty feet, was confirmed by the Supreme Court, on the 20th day of January, 1868, and the Board ordered the actual opening to take place on the 1st day of May last.

Surveys and preliminary estimates were made immediately thereafter, and the work of regulating and grading was begun as soon as was practicable. Up to the present time about 19,000 cubic yards of excavation and filling has been done on the line of the avenue, and about 61,000 cubic yards of additional filling has been obtained and filled in.

It was hoped by the Board that during the year 1868 considerable progress would have been made in the construction of sewers in the Sixth and Seventh avenues, but the Board have been unable to commence the work,

as they have not yet received the plans and grades for the sewers, by which, according to law, they must be constructed.

MOUNT MORRIS SQUARE.

At the close of the calendar year 1867, there remained in the hands of the Board a balance of \$4,848 $\frac{49}{100}$, of the appropriation of \$10,000 made by chapter 565 of Laws of 1867, and during the first four months of 1868 there was expended by the Board, in continuing the work of regulating and grading the square, the sum of \$4,345 $\frac{06}{100}$. The expenditure of the appropriation for the year 1868 was, by the Legislature, devolved upon the Street Commissioner, and no work has been done by direction of the Board since last May.

CIRCLE AT EIGHTH AVENUE, BROADWAY, AND FIFTY-NINTH STREET.

On the 31st day of July, 1866, the Supreme Court appointed Commissioners of Estimate and Assessment to acquire title to the land for the public place, circular in form, at the intersection of Broadway, Eighth avenue, and Fifty-ninth street, and on the 28th day of February, 1868, the report of the Commissioners was confirmed.

The actual opening of the circle was ordered by the Board to take place on the 2d day of March, 1868, and

as the buildings standing on the land required for it were paid for in the awards made for the land, the Board sold them at public auction on the 23d day of April, 1868, and received the sum of \$4,611 for them, which has been appropriated towards paying the expenses of regulating and grading the circle ; which work has been done as far as is practicable, until next year, when it is expected to be completed.

The expenditure by the Board thus far on this work has been \$12,084.64.

AVENUE ST. NICHOLAS AND MANHATTAN STREET.

On the 7th May, 1867, the Supreme Court appointed Commissioners to estimate and assess the benefit and damage by opening the Avenue St. Nicholas from One Hundred and Tenth street to One Hundred and Fifteenth street ; and also for widening and extending Manhattan street from the Avenue St. Nicholas to the Twelfth avenue, but their report not having yet been made to the Court, this Board are unable to proceed with the improvement of this avenue.

THE DISTRICT BETWEEN FIFTY-NINTH STREET AND ONE HUNDRED AND FIFTY-FIFTH STREET, WEST OF EIGHTH AVENUE AND AROUND THE CENTRAL PARK.

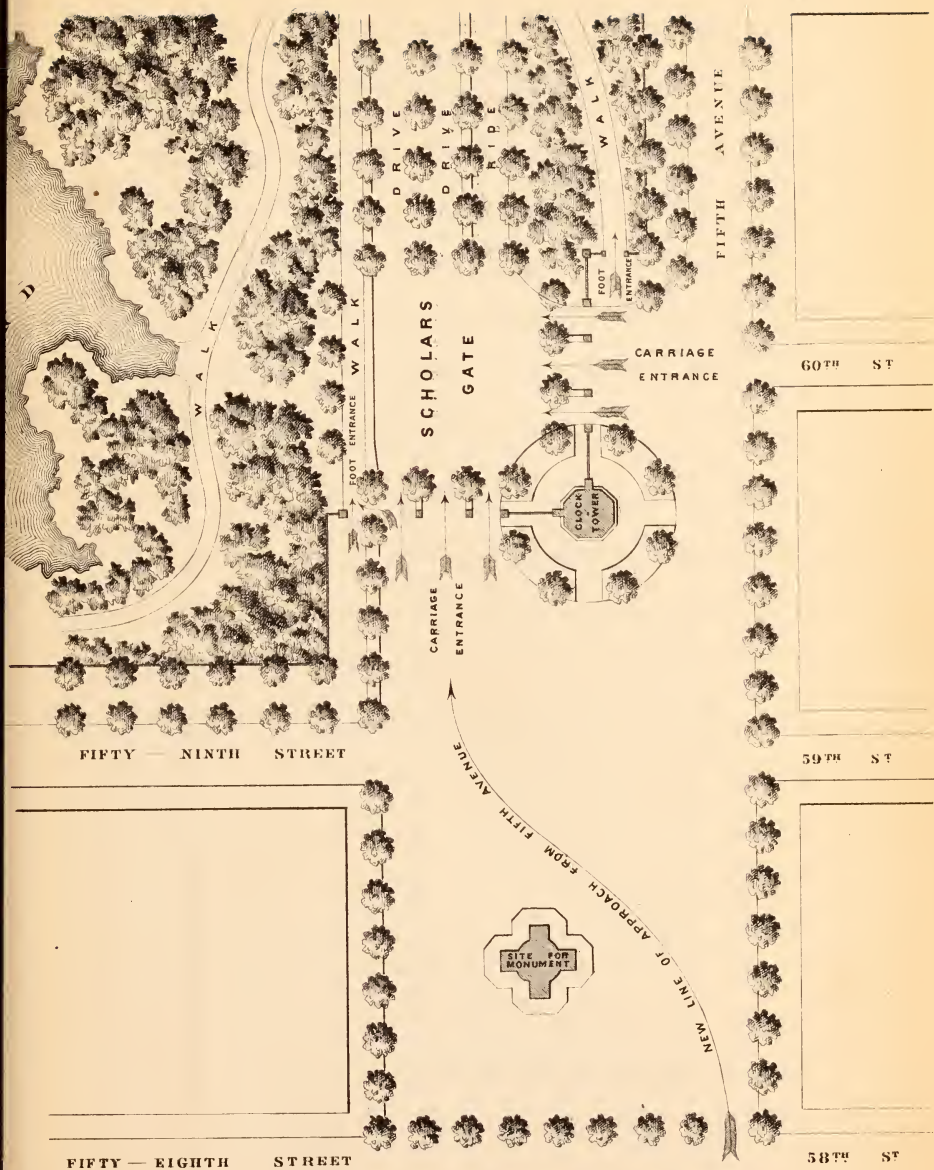
Acting under authority of Chapter 697 of Laws of 1867, the Board, on the 7th of March last, filed as provided by law, similar maps, showing the streets and avenues, public squares and places laid out and retained, and the grades established, altered and adopted by them, for all the district west of Eighth avenue, from Fifty-ninth street to One Hundred and Fifty-fifth street, with the exception of a small portion near Eighth avenue and One Hundred and Tenth street, which was reserved for future consideration.

The reasons which controlled the Board in the alterations made by them were fully set forth in their eleventh annual report to the Common Council, and they are happy to say that up to the present time no serious objections have been developed to the plan by any of the numerous property-owners or citizens interested. Many of them have urged the Board to take measures for the development of their property by the opening of several of the streets and avenues and public places as laid out, or retained on the plans adopted by the Board.

Under the same authority, the Board have also laid out a public square or place on the west side of Fifth avenue, between Fifty-eighth and Fifty-ninth streets, and a street extending across the west side of it, for the purposes of affording a more capacious entrance to the Central Park at that point; the maps showing such laying out have been filed, as provided by law.

The Commissioners were appointed by the Supreme Court to acquire for the city the land composing this square, on the 15th day of April, 1868, but they have not yet made their report. The powers now remaining in the Board to lay out streets, avenues, roads, public squares and places in that part of the city south of One Hundred and Fifty-street are limited to the space, three hundred and fifty feet in width around the southerly, easterly and northerly sides of the Central Park.

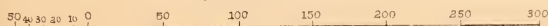
Deeming it best to act cautiously in matters involving great expense to property-owners, the Board have only directed proceedings to be taken to acquire title to land required for public squares and places, and for streets and avenues where it has been requested by a large number of owners of property affected, and where they were satisfied it was for the public interest to do so.



CENTRAL PARK.

Plan showing the new arrangement of Park Entrance
at the corner of 59th Street and 5th Avenue.

SCALE OF FEET



THAT PORTION OF THE ISLAND NORTH OF ONE HUNDRED
AND FIFTY-FIFTH STREET.

During the past year progress has been made in laying out additional streets in this part of the city, in locating, by durable monuments, those laid out in the year 1867, and in the consideration of the grades that will be best adapted to the necessities of the property, and suited for its future drainage and sewerage.

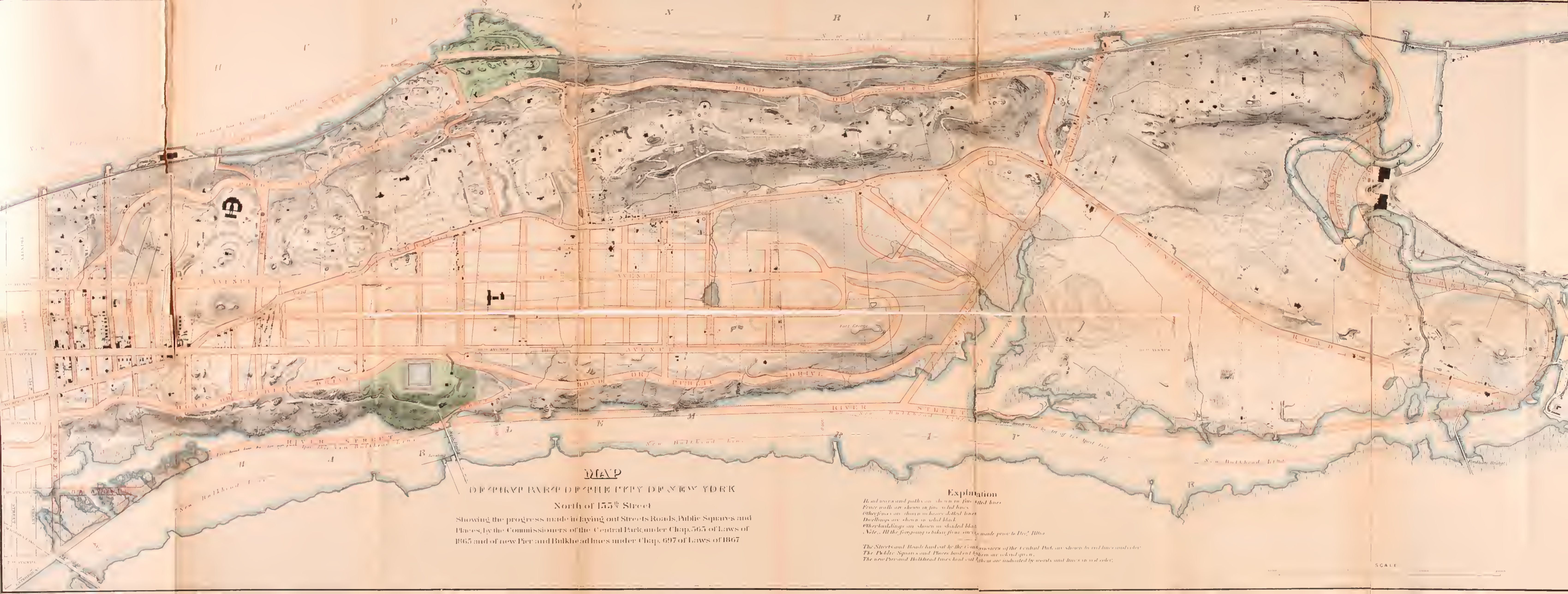
In the part of this district committed to the care of the Board by the law of 1865, which extends along the Harlem river from One Hundred and Fifty-fifth street nearly to the High Bridge, and in the part from near Fort George Hill through the Harlem river and Spuyten Duyvil creek to the North river, the location of but few streets has been determined, inasmuch as the subject of connections with the County of Westchester by tunnels or bridges, and of the streets or roads leading to them on both sides of the river, is involved.

The proper location of bridges and the approaches to them is of importance to the interests of both counties, and can only be intelligently considered upon full information with respect to both, as no general plan of roads in Westchester County leading towards this city has yet

been made. The future requirements of both counties in this regard cannot be adequately provided for without a careful examination of the Westchester side, which the Board has no authority to make. It is hoped that the citizens of Westchester will realize the fact, that much of the convenience and prosperity of the population that is to constitute the coming city on its southern boundary will depend on easy and proper access to their business in this city, and that some satisfactory method may be speedily found to provide plans for streets and avenues and bridges or tunnels to connect the counties, and for the laying out of avenues, streets and roads with respect to the convenience of both counties.

From about a quarter of a mile south of the High Bridge to the end of the bluff bank near Fort George, the altitude of the land on both sides is so great at a short distance from the river, as to afford convenient opportunity for connection with Westchester by suspension bridges, and the roads laid out by the Board between these points will not interfere with the location of bridges hereafter.

The important public works situated at the end of the High Bridge, to wit, the reservoir, the tower for high service of Croton water, the building for the necessary



MAP
OF CENTRAL PARK, CITY OF NEW YORK
North of 155th Street

Showing the progress made in laying out Streets, Roads, Public Squares and Places, by the Commissioners of the Central Park, under Chap. 565 of Laws of 1865 and of new Pier and Bulkhead lines under Chap. 697 of Laws of 1867

Explanation
Roads and paths are shown in fine dotted lines
Fence walls are shown in fine solid lines
Other fences are shown in heavy dotted lines
Dwellings are shown in solid black
Other buildings are shown in shaded blue
Note: All the foregoing is taken from surveys made prior to Dec. 1866
The Streets and Roads laid out by the Commissioners of the Central Park are shown in red lines and color
The Public Squares and Places laid out by them are colored green
The new Pier and Bulkhead lines laid out by them are indicated by words and lines in red color

SCALE

pumping machinery, and the approach to the High Bridge, seemed to indicate the propriety of including these works within an area of public ground that should facilitate access to them, and at the same time provide an open pleasure ground and aid in the development of the adjoining territory.

On the application of the Board, the Supreme Court appointed Commissioners for the opening of the public square or place so laid out.

THE ROAD OR PUBLIC DRIVE FROM FIFTY-NINTH STREET
TO ONE HUNDRED AND FIFTY-FIFTH STREET.

On the 12th day of July, 1866, the Supreme Court appointed Commissioners to open that part of the road or public drive which had been laid out by the Board, from Fifty-ninth to One Hundred and Fifty-fifth street ; and on the 15th of June, 1868, the Court finally confirmed the report made in the matter.

The Court excluded from the plans of this road proposed by the Commissioners of the Park certain small angular pieces of land at the intersection of the road with Ninth, Tenth and Eleventh avenues, thus assuming to this extent to change the plans of the Board at these points.

After the confirmation of the report, the Board took immediate measures to have the road so confirmed, actually opened, and as soon as the awards for the land and buildings taken were provided for, they caused the buildings, with but few exceptions, to be sold at public auction, and realized the sum of \$16,527 for them. These buildings so sold have mainly been removed.

Full preliminary surveys were also made as soon as possible, and the work of regulating and grading the road began, and has been vigorously continued.

Up to the close of the year 1868 there has been expended by the Board on such work, the sum of \$65,068.15, which has been provided for under authority of Sec. 8, Chap. 697 of Laws of 1867, and by appropriating the amounts received for old buildings toward the expenses.

It is the intention of the Board to prosecute the work of regulating and grading the drive as speedily as possible, to provide a capacious avenue for travel between the upper and lower part of the city, on its westerly side.

THE GRADES OF THE EIGHTH AVENUE.

The unsettled condition of the grades for the Eighth avenue has caused great delay in the progress of the enclosing wall of the Park on its west side ; in the com-

pletion of entrance ways to the Park from Eighth avenue ; in the grading, planting and improving of the westerly edge of the Park bordering on the Eighth avenue ; and in the regulating and improving of the land, formerly Manhattan square, and intended to be used for Zoological Gardens.

An Act was passed on the 27th of April, 1865, changing the grade of this avenue from Fifty-ninth street to Ninety-third street, and on the 17th day of April, 1866, another Act was passed by the Legislature, again changing it, and establishing another set of grades between Fifty-ninth street and One Hundred and Twenty-second street ; each of these Acts contained provisions giving to the Commissioners of Central Park power, within certain limits, to approve or reject the grades so established, and to alter or amend them in part, with the consent of the owners of a majority of the lineal feet of front of the land on the Eighth avenue.

This Board performed its duty under these acts in so far as its limited terms would admit, and established, as nearly as was practicable, such grades as seemed best for the interests of all concerned ; but before the avenue could be regulated under either of them, an Act was passed on the 23d of April, 1867, again altering the

grades between 59th street and 122d street, from those previously established by the Commissioners of the Park, and directing the work of regulating and grading that portion of the avenue to be proceeded with, in part by this Board and the remainder by the Street Commissioner. This Act contained conditions requiring the assent of owners of property on a part of the avenue ; and, in the event of certain lines being adopted, legal proceedings in the Supreme Court would be necessary to acquire title to additional lands required for the widening of a part of the avenue, before the actual working could be proceeded with.

No action was taken under this law. On the following day, April 24th, 1867, another act was passed authorizing and directing this Board to alter and amend the map or plan of laying out the part of the city west of the Central Park, and to alter and amend the grades of all streets and avenues laid out, established, or retained by it.

This comprehensive Act for the first time gave the Board the full power over the grade of the Eighth avenue, and within the period of eleven months from the passage of the Act the Board completed the work of altering and amending the lines for streets and avenues west of the

Central Park from 59th street to 155th street, with the exception of a small part near 110th street, and altered, and amended, and established grades for the whole district, including the whole line of the Eighth avenue from 59th street to 110th street.

Maps and profiles showing all these changes of lines and grades, and embracing about eighty-six miles in extent, were filed in the Street Commissioner's office, as provided by law, on the 7th day of March, 1868 ; and it was hoped that the question of the Eighth avenue grade, and the alteration of the lines and widths of it, was finally at rest ; but on the 3d day of June, 1868, an Act was passed referring to the Act of April 17th, 1866, and providing that "the Street Commissioner should proceed forthwith to regulate and grade the said avenue, according to the grade established by the said Act," that is of the Act of 1866.

The consequences resulting from such varying legislation have been an injunction issued from the Court restraining the progress of the work by the Street Commissioner ; uncertainty as to the grades of the cross streets affected by changing the grades of Eighth avenue, and a necessary suspension of much work on the Central Park and Zoological Garden.

The grades fixed by this Board in March last are generally acceptable, and it is very desirable that the regulation of the avenue according to them should be proceeded with; but before this can be done further action by the Legislature will be required.

The statements of the Treasurer, herewith submitted show the receipts and expenditures of the Board in detail, as well as a tabulation of expenditures for the year, and for the period since the organization of the Board.

Dated New York, December 31, 1868.

Respectfully submitted,

HENRY G. STEBBINS,

*President of the Board of
Commissioners of the Central
Park.*

ANDW. H. GREEN,

Comptroller of the Park.

THOS. C. FIELDS,

Secretary.

CHARLES H. RUSSELL,

M. H. GRINNELL,

W. HUTCHINS,

R. M. BLATCHFORD,

J. F. BUTTERWORTH,

*Commissioners
of the
Central Park.*

SUMMARY OF THE TREASURER'S ACCOUNTS.

Construction Account.

Balance on hand, December 31, 1867.....\$75,405 10

The total receipts for the year ending

December 31, 1868, are as follows:

From issue of stock by the city of

New York \$125,000 00

Interest on deposits in Bank
of Commerce..... 2,102 43

Amount re-transferred to
general fund from Main-
tenance, 1867..... 39,674 91

Amount re-transferred to
general fund from "West
Side Improvement"..... 9,936 18

Amount re-transferred to
general fund from "St.
Nicholas avenue"..... 422 50

Amount re-transferred to
general fund from "Grades
Fifth to Eighth avenue,
One Hundred and Tenth
to One Hundred and
Fifty-fifth street"..... 525 62

Amount re-transferred to
general fund from "Man-
hattan street"..... 80 00

Amount re-transferred to
general fund from "Seven-
ty-seventh street"..... 32 20

177,773 84

Carried forward..... \$253,178 94

1868. Brought forward..... \$253,178 94

The total expenditures for the year
ending December, 31, 1868, are as
follows :

Salaries and compensation of officers and clerks.....	\$19,850 00	
Surveyors, engineers, architects, draughtsmen, &c.....	24,477 00	
Salaries of gardening department..	1,179 00	
Incidental expenses.....	6,744 14	
Materials of construction and tools	70,881 03	
Stationery, printing, advertising, drawing materials, &c.....	4,834 76	
Trees and plants.....	982 17	
Manure	1 05	
Earth filling.....	758 25	
Labor account, amount paid laborers, mechanics, cartmen, &c....	120,114 72	
		249,822 12
Balance.....		<u>\$3,356 82</u>

The total receipts of the Board from
the commencement of its organization,
May 1, 1857, are as follows :

From issue of Stock by the city of

New York.....	\$5,385,697 48
Sale of buildings on the Park.	6,155 87
Payment of lost tools.....	451 23
Rent of buildings.....	153 33
Exhibition of plans.....	294 85
Sales of grass.....	2,213 25
Sales of wool.....	222 40
Interest on deposits.....	27,759 77
Pound receipts.....	1,199 87
Licenses for the sale of refreshments, skates, &c.....	7,175 61
Sales of old materials.....	2,467 18
Sale of time-books.....	7 75
Payment of labor and materials furnished by Park.....	4,655 94

Carried forward..... \$5,438,454 53

Brought forward.....	\$5,438,454	53	
Premium on exchange, gold for silver.....		23	52
			<hr/>
			\$5,438,478 05

The expenditures thus far are as follows:

From May 1, 1857, to January 1, 1858.....	\$77,881	41	
January 1, 1858, to January 1, 1859.....	507,487	86	
January 1, 1859, to January 1, 1860.....	1,179,246	47	
January 1, 1860, to January 1, 1861.....	878,354	95	
January 1, 1861, to January 1, 1862.....	479,163	66	
January 1, 1862, to January 1, 1863.....	461,540	32	
January 1, 1863, to January 1, 1864.....	331,871	60	
January 1, 1864, to January 1, 1865.....	452,590	23	
January 1, 1865, to January 1, 1866.....	\$366,915	38	
January 1, 1866, to January 1, 1867.....	250,983	17	
January 1, 1867, to January 1, 1868.....	199,264	06	
January 1, 1868, to January 1, 1869.....	249,822	12	
			<hr/>
			5,435,121 23
			<hr/>
Balance.....			\$3,356 82
			<hr/>

Maintenance Account for the Year 1867.

To balance transferred from general fund.....		\$39,674 91
The expenditure on account of maintenance in the year 1867, in addition to those in the report of last year, is as follows:		
Park-keepers' pay-roll for the month ending December 31, 1867.....		4,551 88
		<hr/>
		\$44,226 79
Received from the city of New York, for deficiency for maintenance, 1867.....	\$39,674 91	
By balance transferred to mainten- ance, 1868.....	4,551 88	
	<hr/>	\$44,226 79
		<hr/>

Maintenance Account for the year 1868.

	LABOR.	MATERIAL.	TOTAL.	
To balance carried from maintenance, 1867.....				\$4,551 88
The expenditures on account of maintenance, 1868, thus far, as follows:				
Roads, care of.....	\$23,220 77	\$366 00	\$23,586 77	
Roads, repairs of.....	5,283 31	15,415 23	20,698 54	
Bridle-roads, care of.....	785 97		785 97	
Bridle-roads, repairs of.....	181 63		181 63	
Walks, care of.....	11,151 83	47 30	11,199 13	
Walks, repairs of.....	3,376 80	13,645 55	17,022 35	
Plantations.....	13,257 20	1,075 07	14,332 27	
Turf.....	14,958 89	540 90	15,499 79	
Water.....	504 15	36 67	540 82	
Ice.....	16,013 11	4,023 67	20,036 78	
Irrigation.....	11,089 42	471 66	11,561 08	
Thorough drainage.....	218 07	299 28	517 35	
Transverse roads.....	196 63		196 63	
Masonry and bridges.....	1,092 52	149 89	1,242 41	
Tools.....	1,362 14	1,170 02	2,532 16	
Surface drainage.....	136 28		136 28	
Buildings.....	3,829 23	404 73	4,233 96	
Lighting Park.....	232 34	204 47	436 81	
Museum.....		561 61	561 61	
Meteorological department....	1,005 00	135 06	1,140 06	
Animals.....	3,723 96	7,098 94	10,822 90	
Sheep.....	940 04	721 05	1,661 09	
Restoring extinct animals....	2,916 62	236 34	3,152 96	
Manure.....	446 33		446 33	
Park and Gate-keepers' wages, uniforms, &c.....	71,030 59	334 55	71,365 14	
Special Park-keepers' wages...	2,616 34		2,616 34	
Gallery of Art.....	295 30	86 58	381 88	
Music.....	4,273 00		4,273 00	
Stationery, printing, and advertising.....	1,203 15		1,203 15	
Miscellaneous.....	7,986 11	4,065 01	12,051 12	
Proportion of Salaries.....	15,000 00		15,000 00	
				269,416 31
Total.....				\$273,968 19

Received from the city of New York for the maintenance of the Park for the year 1868.....	\$250,000 00
Received from licenses for sale of refreshments, skates, chairs, boats, &c.....	11,163 02
Received from sale of grass.....	4,698 25
“ from sale of hay.....	50 00
“ from sale of sheep and wool.....	1,492 49
“ from sale of ice.....	165 00
“ from sale of grass cart.....	115 00
“ from sale of old materials.....	219 66
“ from sale of cabbage.....	83 20
“ from sale of old skates.....	75 00
“ from sale of ducks.....	4 38
“ from sale of guinea pigs.....	2 00
“ from sale of white mice.....	1 00
“ from W. R., toward paying for music.....	10 00
“ from rent of house.....	212 50
“ from pound receipts.....	160 25
“ for removing broken vehicles to Arsenal....	73 50
By balance transferred from Island above One Hundred and Fifty-fifth street and Public Drive....	5,442 94
	<u>\$273,968 19</u>

Island above One Hundred and Fifty-fifth street and Public Drive.
(Chap. 565 of the Laws of 1865.)

Balance on hand December 31, 1867.....	\$22,221 44
The payments on this account for the year ending December 31, 1868, are as follows :	
Surveys, maps, &c.....	\$6,500 82
Stationery, printing, and drawing materials.....	1,197 99
Tools and materials.....	16 09
Incidental expenses.....	262 50
	<u>7,977 40</u>
Balance on hand December 31, 1868.....	<u>\$14,244 04</u>

*Claims against old Commissioners for laying out the City North of
One hundred and Fifty-fifth street.*

Balance on hand December 31, 1867..... \$7,038 32

No payments have been made on this account during the year 1868.

West Side Improvement. (Chap. 550 of the Laws of 1866, and
Chap. 697 of the Laws of 1867.)

Received from the city of New York for laying out that
portion of the Island from Fifty-ninth to One Hun-
dred and Fifty-fifth street..... \$18,000 00

To balance transferred from General Fund,
December 31, 1867..... \$9,936 18

The expenditures on this account for the
year ending December 31, 1868, are as
follows :

Surveys, maps, &c.....	3,697 50	
Stationery, printing, and drawing materials.....	780 04	
Incidental expenses.....	265 00	
	<u>14,678 72</u>	

Balance on hand December 31, 1868..... \$3,321 28

Seventh Avenue.

Balance on hand December 31, 1867..... \$22,994 80

Received from the city of New York on estimates for
regulating and grading Seventh avenue, during the
year 1868..... 100,000 00

\$122,994 80

The payments on this account for the
year ending December 31, 1868, are
as follows:

J. H. Sullivan & Company, con- tractors, regulating and grading	\$91,549 50
Thomas Crimmins, contractor, regulating and grading.....	18,826 50
Surveys, maps, and estimates.....	1,359 87
Tools and materials.....	21 74

Carried forward.... \$111,757 61 \$122,994 80

Brought forward....	\$111,757 61	\$122,994 80
Stationery, printing and drawing materials	\$215 37	
Incidental expenses.....	131 25	
	<hr/>	112,104 23
Balance on hand December 31, 1868.....		<u>\$10,890 57</u>

Sixth Avenue.

Received from the city of New York on estimates for regulating and grading Sixth avenue, during the year ending December 31, 1868..... \$50,000 00

The payments on this account for the year ending December 31, 1868, are as follows:

J. H. Sullivan & Co., contractors, regulating and grading.....	\$22,950 99	
Labor, amount paid laborers, cartmen, &c.....	15,049 49	
Tools and materials.....	59 02	
Surveys, maps, &c.....	1,278 70	
Stationery, printing, and drawing materials.....	193 68	
Incidental expenses.....	131 25	
	<hr/>	39,662 14
Balance on hand December 31, 1868.....		<u>\$10,337 86</u>

Mount Morris Square.

Balance on hand December 31, 1867..... \$4,848 49

The payments on this account for the year ending December 31, 1868, are as follows:

Labor, amount paid laborers, cartmen, &c.....	\$3,988 84	
Surveys, maps, &c.....	293 12	
Tools and materials.....	63 10	
	<hr/>	4,345 06
Balance on hand December 31, 1868.....		<u>\$503 43</u>

Circle, Fifty-ninth Street and Eighth Avenue.

Received from the city of New York for regulating and grading the Circle, Fifty-ninth street and Eighth avenue, for the year ending December 31, 1868	\$10,000 00
Received from the sale of buildings on Circle, Fifty-ninth street and Eighth avenue	4,611 00
	<hr/>
	\$14,611 00

The payments on this account for the year ending December 31, 1868, are as follows:

Labor, amount paid laborers, cartmen, &c.....	\$11,212 70
Tools and materials.....	498 90
Stationery, drawing materials, and advertising.....	91 80
Surveys, maps, &c.....	239 99
Incidental expenses.....	131 25
	<hr/>
	12,084 64
	<hr/>
Balance on hand December 31, 1868.....	\$2,526 36
	<hr/>

Eighty-first Street.

Balance on hand December 31, 1867.....	\$3,902 18
Amount transferred from general fund, a portion of the work being chargeable to the Construction Account.....	4,753 61
	<hr/>
	\$8,655 79

The payments on this account for the year ending December 31, 1868, are as follows:

John Healy, contractor, regulating and grading south half of Eighty-first street.....	\$8,336 00
Stationery and incidental expenses	139 89
Surveys and estimates.....	179 90
	<hr/>
	8,655 79
	<hr/>

Road, or Public Drive.

Received from the city of New York for regulating and grading the Road or Public Drive, during the year ending December 31, 1868.....	\$50,000 00
Received from sale of buildings on line of Public Drive.....	16,527 00
Received from sale of fences on line of Public Drive.....	171 90
	<hr/>
	\$66,698 90

The payments on this account for the year ending December 31, 1868, are as follows:

Labor, amount paid laborers, rockmen, cartmen, teams, &c	\$53,970 06	
Tools and materials.....	7,230 58	
Surveys, maps, &c.....	3,033 05	
Stationery, printing, and advertising.....	269 96	
Auctioneers' fees, and incidental expenses.....	564 50	
	<hr/>	65,068 15

Balance on hand, December 31, 1868....	<u>\$1,630 75</u>
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Ninth Avenue.

Received from the city of New York for regulating and grading Ninth avenue, during the year ending December 31, 1868.....	<u>\$10,000 00</u>
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No payments have been made on this account during the year 1868.

Seventy-seventh Street. (Chap. 632 of the Laws of 1866.)

To balance transferred from general fund, December 31, 1867.....	\$32 20
Received from the city of New York during the year 1868.....	<u>32 20</u>

St. Nicholas Avenue. (Chap 367 of the Laws of 1866.)

To balance transferred from general fund, December 31, 1867.....	\$422 50
Received from the city of New York during the year 1868.....	422 50
	<hr/>

Manhattan Street. (Chap. 367 of the Laws of 1866.)

To balance transferred from general fund, December 31, 1867.	\$80 00
Received from the city of New York during the year 1868.....	80 00
	<hr/>

Grades Fifth to Eighth Avenue, from One Hundred and Tenth to One Hundred and Fifty-fifth Street. (Chap. 367 of the Laws of 1866).

To balance transferred from general fund, December 31, 1867.....	\$525 62
Received from the city of New York during the year 1868	525 62
	<hr/>

Recapitulation.

Balance on hand December 31, 1868, "Construction Account".....	\$3,356 82
Balance on hand December 31, 1868, "Island above One Hundred and Fifty-fifth Street and Public Drive"..	\$14,244 04
Less amount transferred to Maintenance, 1868.....	5,442 94
	<hr/>
	8,801 10
Balance on hand December 31, 1868, "Claims against Old Commissioners for Laying out City North of One Hundred and Fifty-fifth Street".....	7,038 32
Balance on hand December 31, 1868, "West Side Improvement".....	3,321 28
Balance on hand December 31, 1868, "Seventh Avenue".....	10,890 57
Balance on hand December 31, 1868, "Sixth Avenue"	10,337 86
Balance on hand December 31, 1868, "Mount Morris Square".....	503 43
	<hr/>
Carried forward.....	\$44,249 38

Brought forward.....	\$44,249 38
Balance on hand December 31, 1868, "Circle, Fifty-ninth Street and Eighth Avenue".....	2,526 36
Balance on hand December 31, 1868, "Road or Public Drive".....	1,630 75
Balance on hand December 31, 1868, "Ninth Avenue".....	10,000 00
	<hr/>
Balance on hand December 31, 1868....	\$58,406 49
	<hr/>

Dated NEW YORK, December 31, 1868.

ANDW. H. GREEN,

Treasurer of the Board of Commissioners of the Central Park.

APPENDIX A.

Statement in detail of the gifts, devises, and bequests during the past year, for the purpose of embellishing or ornamenting the Park, and of the names of the persons by whom the same are so given, devised or bequeathed :

Miscellaneous.

- Feb. 14. Fireman's Certificate. Date 1798.
- April 11. Master George H. McIntyre,
New York City,
5 Coins.
- April 14. Jeremiah O'Leary, M. D.,
Japan,
Chart of Flags of the Damios.
- May 28. Mr. John Norris,
New York City,
4 Mineralogical specimens.
- June 2. Mr. William Palmer,
Brooklyn, L. I.,
2 Pieces Russian American Money.
- June 19. Mr. Arthur Leary,
New York City,
1 Turkish Caique.
- June 21. Mr. Oscar Bagley,
New York City,
1 Pistol.
- Aug. 21. Mr. Thomas Bennett,
New York City,
1 Sword.

Sept. 1. Messrs. Bennett & Co.,
Beaufort, S. C.,
Back Bone of a Shark.

Nov. 13. Rev. Vincent Palen, U. S. A.,
Specimen of granite of the Mormon Temple
at Utah.

Dec. 15. Capt. Michael Stevenson,
Brig Eclipse,
1 Ashantee Spear.

Botanical.

April 3. Mrs. F. L. Olmsted,
New York City,
2 packages Cleanthus Creeper Seeds—Clean-
thus Dampierii.

April 7. Mr. Theodore Bourne,
New York City,
1 Package Cotton Seed.

May 9. Mrs. J. L. Holmes,
New York City,
1 Package German Morning Glory Seeds.

June 23. Mr. Daniel Holmes,
New York City,
1 Lot Melissa Officinalis—Fol. varigætis.

July 13. Dr. Drummond,
New York City,
1 Package Seeds, Blue Gum Tree of Austra-
lia—Eucalyptus Globulose.

Nov. 6. Hon. H. H. Hall, U. S. Consul,
Sydney, Australia,
52 Packages Seeds.

Nov. 28. Thomas A. Emmett, M. D.,
New York City,
75 Plants.

Animals.

- Jan. 9. M. William J. Pease,
New York City,
2 Virginia Deer.
- Jan. 16. Capt. David Price,
Cleveland, Ohio,
1 Fowl.
- Jan. 26. Mr. & Mrs. Alfred Crussick,
New York City,
1 Raccoon (D).
- Jan. 28. Master Cecil Saguess,
New York City,
1 Ring Dove.
- Jan. 28. Mr. Frank E. Mason,
Elmira, N. Y.,
1 Bald Eagle (D).
- Feb. 1. Masters Charles and Adolph Brown,
2 Opossums.
- Feb. 6. Mr. Edward C. Brooks,
New York City,
1 Raccoon.
- Feb. 13. Mr. Henry Herrick,
1 Opossum (D).
- Feb. 13. Mr. J. M. Swift,
New York City,
1 Horned Owl.
- Feb. 26. Mr. L. Spier,
New York City,
2 Chinese Goats.
- March 12. Master George M. Hatch,
New York City,
2 Rabbits.
- March 20. Mr. E. F. Lasak,
New York City,
1 Red Fox.

- March 23. Mr. J. M. Yates,
New York City,
1 Opossum (D).
- March 23. Mr. William Herbert,
New York City,
1 Red Fox.
- March 24. Richard E. Kunze, M. D.,
New York City,
1 Pair Mottled Owls (D).
- March 25. Mrs. James T. Wenman,
New York City,
1 Deer.
- March 29. Mrs. Jane Peltham,
New Utrecht, L. I.,
1 Mottled Owl (D).
- March 31. Miss Jennie Boyce,
New York City,
1 Monkey (D).
- April 3. Master Arthur Backus,
New York City,
1 Squirrel.
- April 14. Mr. W. W. Sherman,
New York City,
1 Coot (D).
- April 14. Mr. William Bement,
Factoryville, S. I.,
1 Eagle.
- April 27. Mr. Robert Biggart,
New York City,
1 Sea Gull.
- May 1. The Officers of 7th U. S. Cavalry,
1 Bison.
- May 6. Mr. Gerhard Eibermann,
New York City,
1 Clapper Rail.

- May 8. Mr. W. A. Conklin,
New York City,
1 Pair Crow Blackbirds.
- May 8. Mr. Charles W. Geekie,
Baltimore, Md.,
1 Ocelot.
- May 11. Mr. J. L. Swift,
New York City,
1 Woodchuck.
- May 13. Mr. W. A. Conklin,
New York City,
1 Cat Bird (D).
- May 16. Mr. J. A. Foster,
Williamsburgh, L. I.,
1 Wolf (D).
- May 21. Mrs. P. H. Morse,
New York City,
1 Gray Squirrel.
- May 25. Mr. Charles S. Merchant,
Astoria, L. I.,
1 Raccoon.
- May 27. Capt. G. Van de Gevel,
Ship Maria Elizabeth,
1 East India Pig. 1. Muscovy Duck.
- June 12. Ed. S. DeLuce,
Chief Engineer U. S. N.,
1 Toucan.
- June 18. Mr. Robert Gordon,
New York City,
1 Sooty Paca.
- June 19. Mr. Henry R. Dalton,
Boston, Mass.,
1 Alligator.
- June 23. Mr. Horatio Nelson,
1 Alligator.

- June 23. Mr. J. Michaels, Jr.,
1 Hawk. New York City,
- June 29. Capt. John M. Dow,
3 Tee Tee Monkeys (1 D). New York City,
- July 3. Mr. A. E. Beekman,
1 Woodchuck. New York City,
- July 4. Mr. George A. Stone,
1 Alligator (D). New York City,
- July 5. Mr. James H. Roome,
1 Green Monkey. New York City,
- July 6. Mr. Henry Wade,
1 Alligator. New York City,
- July 6. Mr. Harmon Cozzens,
1 Red Squirrel. New York City,
- July 7. Mr. James H. Roome,
1 Brown Thrush. New York City,
- July 8. Adam Haass, M. D.,
1 Woodchuck. New York City,
- July 11. Mr. Charles E. Griswold,
2 Rheas.
- July 15. Master N. J. Waterbury, Jr.,
1 Striped Squirrel. New York City,
- July 16. Albert H. Gallatin, M. D.,
2 Eyed Lizzards (D). 4 Green Lizzards (3 D). New York City,

- July 16. Mrs. Charles Helmuth,
Bay Ridge, L. I.,
2 S. A. Monkeys.
- July 24. Mrs. Wm. Birch,
San Francisco, Cal.,
1 California Quail.
- July 22. Major William T. Moore, U. S. Consul,
St. Croix, W. I.,
1. Macaw.
- July 24. Mr. William C. Gage,
Syracuse, N. Y.,
2 Great Horned Owls.
- August 1. Mr. Thomas J. Smith,
New York City,
1 Screech Owl (D).
- August 3. Messrs. G. W. Fowler and Aug. Schmitz,
Croton Falls, N. Y.,
1 Hawk.
- August 5. Mr. E. E. Freeman,
New York City,
1 S. C. Terrapin.
- August 5. Mr. Robert A. Brookes,
New York City,
1 Raccoon.
- August 7. Mr. Gustavus Dohrenuen,
New York City,
1 Robin.
- August 8. Mr. John J. Crooke,
New York City,
1 Bear.
- August 8. Mr. Harry Hill,
New York City,
1 Bald Eagle (D).

- August 17. Master John Miller,
New York City,
4 White Mice.
- August 24. Col. E. H. Durfee,
Leavenworth, Kansas,
1 Black Bear.
- August 25. Mr. George S. Whitbeck,
Mt. Washington, Mass.,
1 Rattlesnake.
- August 31. Mr. Charles J. Wirner,
Albany, N. Y.,
1 Pair Rasse Cats (1 D).
- Sept. 12. Mr. A. H. Colt,
New York City,
1 Fish Hawk (D).
- Sept. 12. The Americus Club,
New York City,
1 Bald Eagle.
- Sept. 12. Washington Irving,
Paymaster, U. S. N.,
1 Sun Bear.
- Sept. 17. Mr. Andrew Wind,
New York City,
10 White Mice.
- Sept. 24. Masters J. A. and E. K. Hayt,
New York City,
1 Pair American Bitterns.
- Sept. 25. Capt. John M. Dow,
New York City,
1. Toucan.
- Sept. 30. Mr. Ehrich Parmly,
New York City,
3 Colonies Honey Bees.

- Oct. 3. Mr. Augustus A. Silver, U. S. Commercial Agent,
St. Paul DeLoango, Africa,
1 Angola Leopard.
- Oct. 6. Mr. G. P. Laird,
New York City,
1 Bald Eagle.
- Oct. 10. Michael Hudson, M. D.,
New York City,
1 Yellow Leg Sandpiper.
- Oct. 12. Mr. James Y. Gibson,
Patterson, N. J.,
2 Raccoons.
- Oct. 14. Mr. John Foley,
New York City,
1 Saw Whet Owl (D).
- Oct. 17. Master Christopher S. Wisheretine,
New York City,
1 Alligator.
- Oct. 17. Frederick Phillips, M. D.,
Panama,
1 Ocelot (D).
- Oct. 19. Mr. S. G. Cook,
New York City,
1 Parokeet.
- Oct. 19. Col. W. Rhodes,
Quebec, Canada,
1 Pair Sea Gulls (1 D).
- Oct. 23. J. G. Baldwin, M. D.,
New York City,
1 Goshawk (D).
- Oct. 27. Gen. Strum,
Staten Island,
1 Mexican Deer.

- Oct. 28. Mrs. Bigelow,
New York City,
3 Seabright Bantams.
- Oct. 29. Mr. Sylvester Falconer,
New York City,
1 Rattlesnake.
- Oct. 31. Mr. William R. Garrison,
New York City,
1 Cariama (D).
- Nov. 9. Henry Balser, M. D.,
New York City,
1 Purple Gallinule.
- Nov. 14. Mr. James Tucker,
New York City,
1 Pair Seabright Bantams.
- Nov. 14. Mr. Andrew Wind,
New York City,
9 White Mice.
- Nov. 15. Mr. Joshua Jones,
New York City,
9 Pair Java Sparrows. 1 Field Sparrow.
- Nov. 17. Mr. Joshua Jones,
New York City,
6 Chaffinches.
- Nov. 17. Brvt. Brig. Gen. N. B. McLaughlan, U. S. A.,
1 Puma, or American Panther.
- Nov. 19. Col. C. A. Johnson,
Newburyport, Mass.,
1 Duck.
- Nov. 19. Mr. Henry Friedman,
New York City,
1 Tee Tee Monkey.
- Nov. 24. Master Theodore Gilman,
New York City,
1 Pair Rabbits.

- Nov. 25. Mr. Henry Keep,
New York City,
1 Pair Prairie Dogs.
- Nov. 27. Capt. Geo. B. Slocum,
Steamer Mississippi,
1 White lipped Peccary.
- Nov. 27. Mr. James Marshall,
New York City,
1 Rattlesnake.
- Nov. 28. Mr. T. C. Durant,
New York City,
1 Grizzly Bear.
- Dec. 18. William E. Smith, Esq.,
New York City,
1 Rabbit.
- Dec. 21. Master Fred Leland,
New Rochelle, N. Y.,
1 Red Fox.
- Dec. 23. Hon. Caleb Lyons,
Staten Island,
1 Pair Black Spanish Fowl.
- Dec. 23. Count de Miranda,
1 Rhea.
- Dec. 24. Mr. Ledyard Bill,
New York City,
1 Black Bear.

The letter D, opposite the donation, denotes that it is dead.

The above are in good condition, except otherwise noted.

APPENDIX B.

Table of the Number of Visitors at the Park during each Month of the Year, for the past six Years.

MONTHS.	1863.			1864.			1865.			1866.			1867.			1868.		
	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.
January....	51,462	3,952	38,069	555,668	3,953	83,246	658,741	1,641	77,364	640,964	2,755	99,917	481,135	2,485	169,368	415,181	2,503	72,228
February....	49,080	3,489	49,344	134,322	6,244	55,038	163,383	4,472	70,768	290,191	3,897	63,329	70,501	3,956	59,065	223,403	1,717	84,238
March.....	41,064	4,490	44,520	90,630	7,635	67,757	77,743	6,191	86,548	64,200	5,943	73,754	76,144	6,205	59,988	116,110	4,567	69,266
April.....	115,764	10,994	79,095	95,386	14,192	87,575	188,019	11,344	125,864	77,141	3,882	53,028	292,252	14,188	126,853	117,340	7,786	90,437
May.....	137,999	449	3,618	151,678	13,533	147,344	191,527	10,386	126,789	269,604	12,394	165,363	224,847	12,047	126,079	225,844	9,896	108,694
June.....	159,779	12,630	110,792	121,574	14,802	111,253	299,974	11,874	153,279	375,160	13,390	163,563	336,751	9,831	135,669	451,367	8,574	189,405
July.....	89,160	9,378	92,363	380,165	8,085	242,511	467,729	8,750	146,023	313,851	6,372	130,924	337,597	7,180	126,964	338,792	7,198	139,752
August.....	189,366	12,250	113,970	186,016	4,778	89,524	467,665	9,705	157,756	330,011	5,321	115,691	309,151	4,588	100,125	406,261	4,964	109,098
September..	181,850	9,211	163,600	225,256	5,288	92,159	340,355	9,985	180,526	356,881	7,331	154,127	361,863	6,687	132,695	233,942	6,014	118,749
October....	150,418	10,035	108,531	148,488	9,395	98,112	205,444	10,429	104,709	242,641	12,135	363,135	260,430	7,066	158,821	235,204	7,769	156,122
November...	75,231	9,195	50,990	87,291	9,308	92,361	94,578	8,097	124,431	125,049	8,582	134,618	91,205	6,804	92,035	129,345	7,722	106,647
December...	227,163	5,551	65,558	118,725	3,184	81,281	63,898	5,486	71,184	327,199	4,755	62,459	156,894	3,957	94,035	225,378	2,354	54,498
	1,469,335	90,724	922,450	2,295,199	100,397	1,148,161	3,219,056	98,360	1,425,241	3,412,892	86,757	1,579,808	2,998,770	84,994	1,381,697	3,121,167	71,064	1,299,189

The largest number of Pedestrians entering the Park during any one Month of 1868, was in June..... 451,367

The largest number of Equestrians entering the Park during any one Month of 1868, was in May..... 9,896

The largest number of Vehicles entering the Park during any one Month of 1868, was in June..... 189,405

Allowing two extra for each Vehicle, the number of Visitors in 1868 was.....7,089,798

Table of the number of Visitors at each entrance to the Park for each month during the year.

PEDESTRIANS.

1868.	59th st. and 5th av.	72d st. and 5th av.	79th st. and 5th av.	90th st. and 5th av.	102d st. and 5th av.	59th st. and 6th av.	59th st. and 7th av.	59th st. and 8th av.	72d st. and 8th av.	85th st. and 8th av.	96th st. and 8th av.	100th st. and 8th av.	110th st. and 6th av.	110th st. and 7th av.
January.....	106,542	42,047	16,410	996	436	92,630	28,917	87,376	26,323	1,574	245	570	11,115	.....
February.....	55,887	24,000	8,984	1,443	175	47,788	13,943	47,728	12,887	1,444	222	625	8,277	.....
March.....	35,833	8,800	4,585	1,825	97	20,004	14,437	20,073	4,871	989	340	854	3,402	.....
April.....	34,062	6,764	8,074	2,164	.....	22,526	15,675	19,312	3,064	1,263	421	629	3,386	.....
May.....	66,705	10,353	10,675	2,884	.....	40,615	38,150	41,413	6,495	1,864	772	796	5,122	.....
June.....	120,576	39,657	12,931	5,037	.....	88,502	78,274	83,463	11,398	2,220	793	1,241	7,275	.....
July.....	69,506	28,162	10,887	7,564	.....	66,302	65,143	67,591	11,668	2,075	566	1,174	8,154	.....
August.....	80,272	23,582	15,573	4,835	.....	94,980	82,703	83,334	12,811	1,772	661	1,308	7,430	.....
September.....	44,188	17,946	7,487	3,060	.....	53,294	42,508	46,558	10,826	1,354	689	859	5,173	.....
October.....	79,948	12,060	14,127	2,957	.....	30,172	37,154	43,093	6,124	2,073	594	861	6,041	.....
November.....	30,453	8,304	7,051	2,121	.....	26,225	24,452	20,148	3,278	1,486	513	589	4,725	.....
December.....	51,558	17,389	12,549	883	.....	54,357	20,460	48,323	9,702	955	228	420	8,574	.....
Totals.....	775,530	239,064	129,333	35,769	708	637,375	461,816	608,412	119,447	19,069	6,044	9,926	78,674	.....

EQUESTRIANS

1868.	59th St. & 5th Ave.	72d St. & 5th Ave.	79th St. & 5th Ave.	90th St. & 5th Ave.	102d St. & 5th Ave.	59th St. & 8th Ave.	72d St. & 8th Ave.	85th St. & 8th Ave.	96th St. & 8th Ave.	100th St. & 8th Ave.	110th St. & 6th Ave.	110th St. & 7th Ave.
January.....	1,108	221	102	94	12	596	73	27	2	7	261	.....
February.....	781	84	91	46	4	455	31	9	4	17	195	.....
March.....	2,499	153	161	156	8	722	215	27	58	47	521	.....
April.....	4,905	175	211	218	.....	1,204	124	26	115	22	786	.....
May.....	6,240	296	158	164	.....	1,591	253	77	115	56	946	.....
June.....	5,040	291	192	264	.....	1,171	194	80	98	34	1,210	.....
July.....	4,606	237	159	364	.....	802	118	30	51	49	782	.....
August.....	2,352	234	215	176	.....	782	137	70	55	16	927	.....
September.....	3,511	161	124	185	.....	893	190	41	77	14	818	.....
October.....	4,184	279	232	257	.....	1,443	104	101	101	26	1,042	.....
November.....	4,201	246	137	163	.....	1,823	74	33	102	8	935	.....
December.....	1,181	132	66	104	.....	453	25	7	19	5	362	.....
Totals.....	40,608	2,509	1,848	2,191	24	11,935	1,538	528	797	301	8,755	.....

VEHICLES.

	32,984	2,616	2,287	1,039	21	7,082	803	786	363	478	23,769	.....
January.....	32,984	2,616	2,287	1,039	21	7,082	803	786	363	478	23,769	.....
February.....	35,492	2,565	2,520	2,151	125	9,970	699	578	432	691	29,070	.....
March.....	30,802	1,661	1,816	1,527	30	7,632	1,439	273	575	465	23,046	.....
April.....	42,464	2,066	3,531	1,966	.....	9,642	754	488	646	349	28,531	.....
May.....	49,570	2,279	2,575	2,121	.....	12,099	2,189	664	973	701	35,323	.....
June.....	101,837	3,466	2,169	2,607	.....	21,413	1,324	810	1,059	802	53,918	.....
July.....	63,959	3,793	2,556	4,672	.....	15,692	1,230	745	724	736	45,645	.....
August.....	41,271	3,692	2,581	2,906	.....	9,940	1,069	816	794	739	45,290	.....
September.....	41,533	2,243	2,622	3,110	.....	10,208	1,924	588	961	786	54,774	.....
October.....	72,930	2,674	4,034	3,498	.....	14,228	979	604	1,024	1,002	55,149	.....
November.....	38,023	2,317	2,628	2,722	.....	12,927	429	472	678	934	45,517	.....
December.....	19,734	2,282	2,260	1,558	.....	7,135	285	259	439	680	19,866	.....
Totals.....	570,599	31,654	31,579	29,877	176	137,968	13,124	7,083	8,668	8,363	460,098	.....

Statement showing Sunday attendance at the Park, by months, during the past five years.

Months.	1864.				1865.				1866.				1867.				1868.			
	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.
January..	134,738	757	9,881	11,097	133,477	201	6,560	4,404	129,200	323	8,363	9,453	116,570	226	5,448	17,279	193,167	421	8,245	.....
February..	68,355	1,231	14,972	.....	21,755	319	7,293	.....	71,533	486	9,403	.....	24,660	525	7,296	9,659	81,094	185	3,170	6,544
March....	59,458	1,755	16,911	.....	38,279	1,152	16,840	.....	30,657	782	12,332	.....	43,699	1,305	19,822	2,746	65,473	715	12,245	.....
April.....	50,245	2,631	15,552	.....	107,543	2,232	27,346	.....	73,064	1,423	32,702	.....	161,768	2,460	30,759	.....	57,082	1,254	17,441	.....
May.....	115,493	1,880	30,601	.....	58,988	1,186	17,122	.....	149,846	1,960	28,482	.....	117,852	1,666	23,982	.....	136,790	1,599	28,302	.....
June.....	74,707	1,997	10,561	.....	118,982	1,663	26,509	.....	121,849	1,925	20,297	.....	120,725	1,234	23,821	.....	161,734	939	30,336	.....
July.....	135,673	1,416	29,486	.....	171,738	1,626	31,097	.....	125,517	1,289	25,655	.....	123,378	984	27,589	.....	105,315	875	20,462	.....
August....	55,293	540	11,400	.....	106,430	1,595	27,467	.....	127,784	954	24,184	.....	130,676	812	24,402	.....	179,695	949	28,253	.....
September	51,287	576	12,962	.....	107,416	2,153	34,205	.....	153,624	1,496	37,637	.....	161,115	1,365	32,096	.....	69,309	849	20,751	.....
October...	46,698	1,196	16,749	.....	90,522	1,832	32,796	.....	104,624	1,312	22,117	.....	104,791	1,285	33,094	.....	105,524	1,281	29,748	.....
November	32,634	1,478	15,728	.....	40,630	1,386	24,430	.....	47,440	1,144	20,364	.....	80,657	929	16,966	.....	57,287	1,223	30,527	.....
December	57,542	403	7,793	9,624	26,113	810	10,748	4,989	101,536	886	13,684	26	25,807	749	11,791	8,322	25,374	204	4,193	2,059
Totals..	882,123	15,800	198,590	20,721	1,021,873	16,155	262,373	9,393	1,226,072	13,080	255,220	6,479	1,170,898	13,540	257,066	29,816	1,237,844	10,494	233,673	8,603

The largest number of pedestrians that entered the Park on any one day was on January 19.....84,416.

The smallest number of pedestrians that entered the Park on any one day was on March 21..... 61.

The largest number of equestrians that entered the Park on any one day was on June 1..... 547

The smallest number of equestrians that entered the Park on any one day was on November 1..... 1

The largest number of vehicles that entered the Park on any one day was on June 17.....13,038

The smallest number of vehicles that entered the Park on any one day was on March 21..... 111

Table showing the number of Visitors entering the Park during each hour of the day for each month of the year.

PEDESTRIANS.

MONTHS.	5 A. M. to 6 A. M.	6 A. M. to 7 A. M.	7 A. M. to 8 A. M.	8 A. M. to 9 A. M.	9 A. M. to 10 A. M.	10 A. M. to 11 A. M.	11 A. M. to 12 M.	12 M. to 1 P. M.	1 P. M. to 2 P. M.	2 P. M. to 3 P. M.	3 P. M. to 4 P. M.	4 P. M. to 5 P. M.	5 P. M. to 6 P. M.	6 P. M. to 7 P. M.	7 P. M. to 8 P. M.	8 P. M. to 9 P. M.	9 P. M. to 10 P. M.	10 P. M. to 11 P. M.
January.....	1,166	2,955	8,068	14,453	18,602	23,056	56,061	94,608	90,566	40,695	11,720	9,118	22,581	3,352	373
February.....	788	1,707	4,653	8,210	9,526	11,136	24,556	48,672	47,649	26,719	10,647	11,167	8,538	2,529	347
March.....	1,024	2,164	3,766	5,714	6,501	13,145	22,992	26,250	26,250	17,005	6,284	2,412	1,306	697	42
April.....	614	1,170	3,776	5,364	5,548	7,065	13,716	20,147	25,288	19,512	8,132	2,718	1,451	619	11
May.....	1,407	2,441	4,343	7,162	12,487	12,480	19,022	36,075	46,898	37,369	18,481	7,028	4,048	2,811	40
June.....	2,505	4,067	6,221	11,484	13,632	23,794	17,148	25,239	69,350	96,831	84,988	45,540	19,157	7,949	925
July.....	3,625	5,980	14,950	20,026	18,219	13,509	19,564	33,774	52,348	47,980	31,096	18,564	19,699	7,023	2,584
August.....	1,005	2,564	4,162	7,120	16,424	25,063	49,871	83,882	77,480	48,549	18,564	13,059	8,925	4,033	1,700
September.....	1,243	2,906	5,077	9,550	15,127	14,794	11,131	33,935	46,695	36,329	18,316	7,475	5,465	2,068	598
October.....	1,767	2,651	7,012	10,839	12,630	11,594	22,839	50,958	55,618	34,466	11,569	4,455	2,788	1,082	.....
November.....	381	1,207	4,395	6,580	6,921	9,248	15,109	25,945	29,089	15,797	6,896	1,798	1,068	.....	.....
December.....	1,042	3,469	8,652	14,052	14,226	14,182	27,960	40,986	33,100	22,517	10,011	7,882	13,726	3,120	692
Totals.....	2,904	14,359	28,604	51,634	95,253	149,614	164,007	153,552	281,631	527,261	634,244	460,725	225,241	106,554	110,406	82,478	26,015	7,225

Table showing the number of Equestrians entering the Park during each hour of the day for each month of the year.

EQUESTRIANS.

MONTHS.	5 A. M. to 6 A. M.	6 A. M. to 7 A. M.	7 A. M. to 8 A. M.	8 A. M. to 9 A. M.	9 A. M. to 10 A. M.	10 A. M. to 11 A. M.	11 A. M. to 12 M.	12 M. to 1 P. M.	1 P. M. to 2 P. M.	2 P. M. to 3 P. M.	3 P. M. to 4 P. M.	4 P. M. to 5 P. M.	5 P. M. to 6 P. M.	6 P. M. to 7 P. M.	7 P. M. to 8 P. M.	8 P. M. to 9 P. M.	9 P. M. to 10 P. M.	10 P. M. to 11 P. M.
January.....	219	233	251	252	174	156	219	337	283	214	106	20	7	1	.....
February.....	75	74	115	134	125	133	163	193	297	229	150	30	8	1	.....
March.....	377	345	373	358	258	186	262	446	652	639	347	119	10	.....	.....
April.....	837	427	440	373	276	300	570	587	872	1,132	860	240	25	.....	.....
May.....	1,553	826	535	461	374	223	347	463	667	1,090	901	402	92	10	.....
June.....	1,171	591	402	367	283	256	300	414	530	655	810	684	339	2	.....
July.....	1,421	514	380	364	364	173	99	129	263	320	377	509	419	53	13
August.....	642	435	280	266	199	69	141	250	295	417	444	374	157	9	3
September.....	849	531	321	271	238	106	150	285	454	540	553	342	96	6	1
October.....	647	330	213	209	239	318	419	819	1,211	1,259	977	292	103	21	.....
November.....	692	435	341	342	290	395	865	1,304	1,039	575	536	35	5	.....	.....
December.....	213	164	158	153	141	169	238	270	348	335	123	27	7	2	1
Totals.....	610	8,798	8,589	5,314	3,943	3,556	2,961	2,484	3,803	5,503	6,911	7,405	6,184	3,180	1,296	423	73	52

Table showing the number of Visitors entering the Park during each hour of the day for each month of the year.

VEHICLES.

MONTHS.	5 A. M. to 6 A. M.	6 A. M. to 7 A. M.	7 A. M. to 8 A. M.	8 A. M. to 9 A. M.	9 A. M. to 10 A. M.	10 A. M. to 11 A. M.	11 A. M. to 12 M.	12 M. to 1 P. M.	1 P. M. to 2 P. M.	2 P. M. to 3 P. M.	3 P. M. to 4 P. M.	4 P. M. to 5 P. M.	5 P. M. to 6 P. M.	6 P. M. to 7 P. M.	7 P. M. to 8 P. M.	8 P. M. to 9 P. M.	9 P. M. to 10 P. M.	10 P. M. to 11 P. M.
January.....	.....	5	1,072	1,964	3,254	4,217	4,551	3,185	4,904	9,347	12,365	13,178	7,214	3,099	1,650	1,200	713	310
February.....	.....	.....	806	1,163	2,138	2,969	3,738	3,649	3,896	7,201	10,645	12,838	15,520	9,587	4,338	2,462	2,228	1,115
March.....	.....	287	1,367	2,250	3,058	3,474	3,504	2,727	4,004	8,141	12,671	11,983	9,098	4,580	1,572	486	52	12
April.....	.....	785	1,903	2,843	3,531	3,973	3,575	3,150	4,660	8,723	13,894	18,441	15,798	6,377	2,048	736	.....	.....
May.....	.....	1,612	3,493	4,949	4,582	5,182	5,272	3,228	4,150	9,001	15,706	19,914	18,987	9,781	3,052	1,085	.....	.....
June.....	41	2,393	3,637	4,204	4,496	4,992	4,895	6,451	7,352	16,138	33,823	33,390	31,735	21,361	9,367	3,351	1,103	476
July.....	754	2,565	4,769	4,590	4,376	4,618	3,822	3,017	3,782	6,083	10,078	14,667	20,670	24,420	18,279	8,032	3,612	1,618
August.....	378	1,241	4,074	4,722	4,695	4,631	4,133	1,841	3,203	6,020	9,088	12,517	15,197	18,045	11,486	4,561	2,343	1,023
September.....	290	1,036	4,215	5,334	5,295	5,132	4,392	2,740	3,811	6,771	12,398	17,079	19,800	16,343	8,030	3,571	1,764	748
October.....	421	2,317	4,276	5,194	5,894	6,377	6,461	9,434	14,695	21,904	25,086	26,899	16,577	6,997	2,971	892	.....	.....
November.....	.....	1,418	3,381	4,045	4,386	4,383	4,018	4,071	6,594	13,788	19,888	18,497	12,879	5,882	2,525	892	.....	.....
December.....	.....	.....	1,214	2,352	3,198	3,526	3,364	2,689	4,176	6,510	8,730	8,784	6,032	2,368	1,101	233	147	74
Totals.....	1 884	13 659	34,207	42,910	48,903	53,474	51,725	46,182	65,227	119,627	184,372	208,187	188,907	129,040	66,419	27,228	11,862	5,376

APPENDIX C.

METEOROLOGICAL OBSERVATORY.

Latitude	-	-	-	-	40°, 45', 58" north.
Longitude	-	-	-	-	73°, 57', 58" west.
Height of ground above the sea	-	-	-	-	44 feet.
Height of instrument above the ground	-	-	-	-	53 "
Height of instrument above the sea	-	-	-	-	97 "

TABLE.—I.

Table showing the observed heights of the Barometer, monthly, for the year 1868.

MONTHS 1868.	Mean at 7 A. M.	Mean at 2 P. M.	Mean at 9 P. M.	Month mean.	Maximum.	Minimum.	Difference or range.
January...	30.016	29.985	30.030	30.011	30.590	29.304	1.286
February..	30.181	30.152	30.163	30.165	30.750	29.533	1.217
March.....	30.059	30.049	30.067	30.058	30.640	29.140	1.500
April.....	30.076	30.033	30.045	30.048	30.504	29.153	1.351
May.....	29.909	29.903	30.251	30.911	30.264	29.510	.754
June.....	30.080	30.076	30.074	30.076	30.392	29.730	.661
July.....	30.040	30.037	30.032	30.036	30.250	29.731	.519
August....	30.070	30.059	30.070	30.066	30.340	29.722	.618
September	30.087	30.069	30.089	30.081	30.470	29.850	.620
October...	30.184	30.135	30.156	30.148	30.586	29.703	.883
November.	29.951	29.964	30.003	29.980	30.442	29.428	1.014
December.	29.963	29.936	29.974	29.958	30.408	29.076	1.332

Year mean at 7 A. M., of 365 observations. .30.051

“ at 2 P. M., of 365 “ .30.033

“ at 9 P. M., of 365 “ .30.079

Year mean of.....1.095 “ .30.054

Maximum for the year.....30.750 at 7 A. M., February 24th.

Minimum “ “29.076 at 9 P. M., December 7th.

Difference or range..... 1.674

TABLE.—II.

Table showing the state of the Thermometer, monthly, for the year 1868.

MONTHS, 1868.	FORENOON.		AFTERNOON.		Month mean.	Maximum.	Minimum.	Difference or Range.
	No. of Observa- tions.	Mean.	No. of Observa- tions.	Mean.				
January	382	25.75	366	29.07	27.41	44.80	9.50	35.30
February	346	21.02	335	26.50	23.76	49.40	1.40	50.80
March	371	34.51	365	39.94	37.22	57.20	1.60	55.60
April	364	41.91	354	46.94	44.42	67.50	24.00	43.50
May	380	52.11	356	55.86	53.98	70.00	40.40	29.60
June	350	64.89	350	68.57	66.73	88.00	51.00	37.00
July	379	73.50	368	78.63	76.06	95.50	62.00	33.50
August	364	70.73	358	76.00	73.36	90.00	55.30	34.70
September . . .	359	62.66	364	66.45	64.55	88.00	45.00	43.00
October	312	49.43	319	53.21	51.32	76.50	31.30	45.20
November . . .	346	36.93	352	43.73	40.33	67.00	32.00	35.00
December . . .	350	26.57	347	29.77	28.17	43.00	11.00	32.00

Year mean, in forenoon, of 4,303 observations. .46.66

“ in afternoon of 4,234 “ .51.22

Year mean of8,537 “ .48.94

Maximum during the year95.50 above zero at 2.30 P. M., July 4th.

Minimum “ “1.40 below zero at 4.35 A. M., Feb. 23d.

Difference or range.96.90

TABLE.—III.

Table showing the duration and depth of Rain and Snow, monthly, during the year 1868.

RAIN.

MONTHS. 1868.	No. of days on which rain descended.	DURATION.			Depth in inches.	Total Depth in inches.	Depth of water produced. inches.	REMARKS.
		Days.	Hours.	Minutes.				
January...	8	1	10	23	1.530	1.530		
February..	12	....	20	38	.164	1.694		
March.....	3	....	20	45	1.900	2.594		
April.....	16	3	21	20	4.430	7.024		
May.....	20	6	6	18	6.980	14.004		
June.....	13	2	10	31	4.903	18.907		
July.....	12	1	14	4	5.705	24.612		
August....	16	1	....	33	7.582	32.194		
September.	17	3	20	49	9.503	42.697		
October...	13	2	17	18	1.804	44.501		
November.	10	3	9	40	4.760	49.261		
December.	10	3	7	30	1.160	50.421		
	140	31	15	49	50.421	8.058		
							58.497	Total depth of rain and melted snow.

SNOW.

January...	13	3	9	38	23.70	23.70	1.920
February..	14	1	20	52	16.50	40.20	.807
March....	3	3	19	24	22.75	62.95	1.896
April.....	4	....	9	25	1.39	64.34	1.230
November.	1	....	....	5	....	....	....
December.	9	2	10	30	8.5	72.84	2.205
Total...	44	11	21	54	72.84		8.058

REMARK.

The comparative fall of rain in the months of September, 1867, 1868, was as follows:

September, 1868.....9.50 inches.

“ 1867......84 “

8.66

Therefore, there was more than eleven times as much rain in September, 1868, as in September, 1867.

TABLE.—IV.

Table showing the points from which the Wind came during the year 1868.

MONTHS, 1868,	No. of Observations.	N.	NNE.	NE.	ENE.	E.	ESE.	SE.	SSE.	S.	SSW.	SW.	WSW.	W.	WNW.	NW.	NNW.
January.....	93	11	1	6	5	4	...	...	...	2	1	1	4	24	15	13	6
February....	87	17	6	7	....	5	...	...	...	2	3	5	2	22	...	12	6
March.....	93	7	3	4	5	13	...	6	4	13	2	3	1	8	1	15	8
April.....	90	8	8	8	3	2	...	14	2	6	1	8	5	9	8	10	4
May.....	93	3	3	18	5	8	1	22	1	1	2	6	1	7	1	10	4
June.....	90	7	2	15	1	4	1	26	1	3	1	6	1	6	1	13	2
July.....	93	3	2	15	....	8	...	32	1	3	...	20	...	3	...	6	...
August.....	93	6	2	6	1	4	...	17	6	2	1	28	6	3	1	7	3
September...	90	5	1	12	1	7	1	14	...	7	2	10	1	13	3	12	1
October.	93	11	1	10	3	3	2	3	4	4	1	10	3	9	4	17	2
November...	90	3	5	2	3	4	...	5	1	4	4	5	6	18	14	15	1
December...	93	12	8	1	4	1	...	...	...	2	2	1	14	20	15	12	1
Totals....	1098	94	42	104	31	63	4	139	20	49	20	103	44	142	63	142	38

REMARK.

The prevailing winds for the year 1868 were West and North-West.

TABLE.—V.

Table showing the Velocity of the Wind during the year 1868.

MONTHS, 1868.	Miles.	Daily Mean.	Hourly Mean.	PERPENDICULAR FORCE, LBS. AVOIRDUPOIS.	
				Monthly Mean.	Daily Mean.
January	4290.05	138.387	5.764	6.213	.200
February	6704.03	231.173	9.538	20.731	.715
March	5553.80	179.150	7.460	12.526	.404
April	5648.60	188.268	7.674	10.446	.348
May	5315.60	171.474	7.179	8.886	.287
June	4677.54	155.918	6.506	7.287	.243
July	4070.85	131.319	5.407	5.228	.169
August	5407.79	174.445	7.595	9.555	.308
September	6471.55	215.718	8.958	14.051	.468
October	5651.70	182.313	7.615	10.449	.339
November	6740.10	224.670	8.302	17.091	.569
December	7553.60	243.660	9.179	25.597	.825
TOTAL	68045.21	2236.495	91.177	148.060	4.875

TABLE VI.

COMPARISON OF YEARS 1867, '8.

	1867.	1868.
BAROMETER.		
Highest—inches.....	30.941	30.750
“ “ date.....	Feb. 11th, 2 P. M.	Feb. 24th, 7 A. M.
Greatest mean monthly pressure.....	30.140	30.911
“ “ “ “ date..	September.	May.
Lowest—inches.....	29.051	29.076
“ “ date.....	May 8th, 2 P. M.	Dec. 7th, 9 P. M.
Least mean monthly pressure.....	29.859	29.958
“ “ “ “ date....	January.	December.
Mean for the year.....	30.002	30.054
THERMOMETER.		
Highest—degrees.....	89.00	95.50
“ “ date.....	July 4th, 4 P. M.	July 4th, 2.30 P. M.
Warmest month mean.....	70.81	76.06
“ “ “ date.....	July.	July.
Coldest day—degrees.....	1.50	1.40
“ “ “ date.....	Jan. 30th, 6 A. M.	Feb. 23d, 4.35 A. M.
Mean for the year.....	49.61	48.94
RAIN.		
Amount—inches.....	45.10	50.421
SNOW.		
Amount (as water)—inches.....	8.03	8.058

TABLE VII.

Great Rain and Thunder Storm on Saturday, August 8th, 1868.

Rain commenced 8.19 A. M.

“ continued 2 hrs. 22 mins. . . Depth of Water 0.500 inch.

“ re-commenced 1.40 P. M.

“ continued 1 hr. 22 mins. . . . “ “ 3.325 inches.

“ re-commenced 3.28 P. M.

“ continued 22 mins. . . . “ “ 0.205 inch.

4.030 inches.

Lightning and Thunder from 2.02 P. M. to 3 P. M. very severe.

This storm produced in 1 hour 46 minutes, 3.325 inches of water.

APPENDIX D.

PRESENTATION OF THE STATUE OF THE INDIAN HUNTER.

NEW YORK, December 28, 1868.

HON. ANDREW H. GREEN,

Comptroller of Central Park :

DEAR SIR—We have much pleasure in presenting through you to the Central Park, the admirable statue in bronze, heroic size, of "The Indian Hunter," J. Q. A. Ward, sculptor. Both in Europe and America it justly ranks among the best examples of the plastic art, for its bold and vigorous treatment, and its truthful delineation.

We have peculiar satisfaction in placing at your disposal a work so truly American in subject, and so admirably executed, by one of our native and most celebrated sculptors.

We trust it may find a fitting place in the great Park which is so much admired and appreciated, not only by our own citizens, but by all who visit the great metropolis.

In behalf of the subscribers to the "Indian Hunter Fund," we are,

Very respectfully, yours,

Lucius Tuckerman,
Le Grand Lockwood,
Robert Hoe,
Cyrus Butler,
Henry G. Stebbins,
Samuel G. Ward,
H. Pierpont Morgan,
R. M. Olyphant,
W. E. Dodge, Jr.,
Charles S. Smith,
Sheppard Gandy,
W. H. Raynor,

John Taylor Johnston,
William T. Blodgett,
J. F. Kensett,
William H. Fogg,
C. E. Detmold,
Levi P. Morton,
Richard M. Hunt,
D. Huntington,
H. G. Marquand,
James McKaye,
R. E. Hawkins,

Committee of the "Indian Hunter Fund."

OFFICE OF THE BOARD OF COMMISSIONERS OF THE CENTRAL
 PARK, BANK OF COMMERCE BUILDING,
 31 Nassau Street,
 NEW YORK, January 30, 1869.

GENTLEMEN—I have the pleasure of acknowledging the receipt of your communication of the 28th ultimo, presenting to the Central Park a statue in bronze, heroic size, of “The Indian Hunter,” J. Q. A. Ward, sculptor.

The Commissioners of the Park, fully concurring in your high estimate of the ability shown by the eminent artist in the conception and execution of this beautiful work, will, with peculiar satisfaction, add its great attractions to those already existing in the Park.

The Commissioners value highly the sentiments you so kindly express respecting the work under their charge, and they desire, as well for themselves as on behalf of all those to whom your distinguished liberality affords the opportunity to admire the exquisite proportions of this justly celebrated statue, and its faithful rendering of a peculiarly American subject, to tender to you their warmest and most appreciative acknowledgments.

I am, with great respect,

Yours very sincerely,

ANDW. H. GREEN,

Comptroller of the Park.

To Messrs.

Lucius Tuckerman,
 Le Grand Lockwood,
 Robert Hoe,
 Cyrus Butler,
 Henry G. Stebbins,
 Samuel G. Ward,
 H. Pierpont Morgan,
 R. M. Olyphant,
 W. E. Doyle, Jr.,
 Charles S. Smith,
 Sheppard Gandy,
 W. H. Raynor,

John Taylor Johnston,
 William T. Blodgett,
 J. F. Kensett,
 William H. Fogg,
 C. E. Detmold,
 Levi P. Morton,
 Richard M. Hunt,
 D. Huntington,
 H. G. Marquand,
 James McKaye,
 R. C. Hawkins,

Committee of the “Indian Hunter Fund.”

APPENDIX E.

A DETAILED STATEMENT

Of the Living Birds and Animals in captivity, and Mammalia, that have bred on the Central Park, during the Year 1868.

For the identification of the birds living in captivity, the Board is indebted to George N. Lawrence, Esq., and for that of the animals, to William J. Hays, Esq., of this city.

MAMMALIA.

Order: QUADRUMANA.

Family: *Simiadae*.

Genus: *Circopithecus*. 2 specimens; Green Monkey, *C. callitricheus* (Geoffr.).

Family: *Cebidae*.

Genus; *Cebus*. 5 specimens, 3 species; 1 White-breasted Sajou, *C. hypoleucus* (Geoffr.); 3 brown Sajous, *C. appela* (Geoffr.); 1 Sai, *C. capucinus* (Erxe.).

Genus: *Callithrix*. 3 specimens; Titi Monkey, *C. Sciurea* (Geoffr.).

Order: CARNIVORA.

Family: *Felidae*.

Genus; *Felis*. 4 specimens, 3 species; 1 Leopard, *F. leopardus* (Linn.); 1 Puma, or Cougar, or American Panther, *F. concolor* (Linn.); 2 Ocelots, *F. pardalis* (Linn.).

Genus: *Lynx*. 1 specimen; Texas Wild Cat, *L. rufus*, var. *maculatus* (Aud. and Bach.).

Family: *Canidae*.

Genus: *Canis*. 12 specimens, 5 species; 3 Prairie Wolves, *C. latrans* (Say); 6 Esquimaux Dogs, *C. familiaris*, var. *borealis* (Linn.); 1 English

Greyhound, *C. familiaris* (Linn.); 1 Shepherd Dog, *C. familiaris* (Linn.); 1 Alpine Mastiff, *C. familiaris* (Linn.).

Genus: *Vulpes*. 4 specimens; Red Fox, *V. fulvus* (Desm.).

Family: *Viverridae*.

Genus: *Viverra*. 1 specimen; Rasse, *V. rasse* (Horsf.).

Family: *Ursidae*.

Genus: *Procyon*. 6 specimens; Raccoon, *P. lotor* (Storr).

Genus: *Ursus*. 10 specimens, 3 species; 1 Grizzly Bear, *U. horribilis* (Ord.); 8 Black Bears, *U. americanus* (Pallas.); 1 Malayan Sun Bear, *U. malayanus*.

Genus: *Nasus*. 3 specimens; Coatimundi, *N. nasica*.

Order: MARSUPIALIA.

Family: *Didelphidae*.

Genus: *Didelphys*. 1 specimen; Common Opossum, *D. virginiana* (Shaw).

Order: RODENTIA.

Family: *Sciuridae*.

Genus: *Sciurus*. 10 specimens, 4 species, 2 varieties; 1 Southern Fox Squirrel, *S. vulpinus* (Gm.); 5 Gray Squirrels, *S. carolinensis* (Gm.); 2 Black Squirrels, *S. carolinensis*, var. *niger* (Gm.); 1 Red Squirrel, *S. herdsonius* (Pallas.); 1 Costa Rica Squirrel, *S. —*?

Genus: *Tamias*. 1 specimen; Striped Squirrel, *T. striatus* (Linn.).

Genus: *Cynomys*. 4 specimens, 2 species; 3 Prairie Dogs, *C. ludovicianus* (Baird); 1 Short-tailed Prairie Dog, *C. gunnisonii* (Baird).

Genus: *Arctomys*. 3 specimens; Woodchuck, *A. monax* (Gm.).

Family: *Muridae*.

Genus: *Mus*. 63 specimens, 2 species; 13 White Rats, *M. rattus*, var. *alb.*; 50 White Mice, *M. musculus* (Linn.).

Genus: *Fiber*. 1 specimen; Muskrat, *F. zibethicus* (Cur.).

Family : *Hystriidae*.

Genus : *Dasyprocta*. 2 specimens ; Agouti, *D. agouti* (Ill.).

Genus : *Caclogenyx*. 1 specimen ; Sooty Paca, or Spotted Cavy, *C. paca* (Rengg.).

Genus : *Cavia*. 11 specimens ; Guinea Pigs, *Cavia Cobaya* (Pall.).

Family ; *Leporidae*.

Genus : *Lepus*. 5 specimens ; Rabbit. *L. cuniculus* (Linn.).

Order : PACHYDERMATA.

Family : *Rhinocerotidae*.

Genus : *Tapirus*. 1 specimen ; American tapir, *T. americanus* (Linn.).

Family : *Suidae*.

Genus : *Sus*. 2 specimens, 2 varieties ; 1 Chinese Hog, *S. scrofa* (Linn.) ; 1 Japanese Hog, *S. scrofa* (Linn.).

Genus : *Dicotyles*. 3 specimens, 2 species ; 2 Collared Peccaries, *Dicotyles tajacu* (Linn.) ; 1 White-lipped Peccary, *D. labiatus* (Cuv.).

Order : RUMINANTIA.

Family : *Cervidae*.

Genus : *Cervus*. 28 specimens, 3 species ; Wapiti Deer or 3 American Elk, *C. canadensis* (Exre.) ; 23 Virginia Deer, *C. virginianus* (Bodd.) ; 2 Mexican Deer, *C. mexicanus* (Gm.).

Genus : *Axis*. 1 specimen ; Axis Deer, *A. maculata* (Gray).

Family : *Capricornia*.

Genus ; *Ovis*. 160 specimens ; Southdown Sheep, *O. aries* (Linn.).

Genus : *Capra*. 3 specimens, 2 varieties ; 2 Chinese Goats, *C. hircus* (Linn.) ; 1 Domestic Goat, *C. hircus* (Linn.).

Genus : *Bos*. 13 specimens, 3 species, 2 varieties ; 4 Cape Buffaloes, *B. caffer* (Spawn.) ; 1 Bison or American Buffalo, *B. americanus* (Gm.) ; 6 Flores Cattle, *B. taurus* (Linn.) ; 2 Kerry Cattle, *B. taurus* (Linn.).

Family : *Camelidae*.

Genus : *Camelus*. 2 specimens; Dromedary, *C. dromedaris* (Linn.).

AVES.

Order ; ACCIPITRES.

Family : *Falconidae*.

Genus : *Accipiter*. 1 specimen ; Cooper's Hawk, *A. cooperii* (Bon.).

Genus : *Buteo*. 1 specimen ; Red-tailed Hawk, *B. borealis* (Gm.).

Genus : *Aquila*. 1 specimen : Imperial Eagle, *A. mogilink* (Gm.).

Genus : *Haliaetus*. 15 specimens ; Bald Eagle, *H. leucocephalus* (Linn.).

Family : *Strigidae*.

Genus : *Bubo*. 12 specimens ; Great Horned Owl, *B. virginianus* (Gm.).

Order : ZYGODACTYLI.

Family : *Psittacidae*.

Genus : *Sittace*. 2 specimens ; Scarlet Macaw, *S. chloroptera* (Gray).

Genus : *Conurus*. 2 specimens ; Parroquets, *C. pertinax* (Linn.); (*xantholaemus*, Scl.); Genus *Euphema*, 1 specimen ; Grass Parroquets, *E. elegans*, Gould ?

Genus : *Chryostis*. 1 specimen ; Mexican Parrot, *C. levillanti*, Gray.

Genus : *Ptilolophus*. 2 specimens ; Sulphur-crested Cockatoo, *P. sulphureus* (Gm.).

Family : *Ramphastidae*.

Genus : *Ramphastos* : 1 specimen ; Ariel Toucan, *R. ariel*, vigors.

Genus : *Pteroglossus*. 1 specimen ; Aracari, *P. torquatus* (Gm.).

Order : PASSERES.

Family : *Turdidæ*.

Genus : *Turdus*. 5 specimens, 2 species ; 4 Common Robins, *T. migratorius*, Linn.; 1 South American Robin, *T. gigas*, Fraser.

Genus : *Mimus* : 6 specimens ; Mocking-bird, *M. polyglottus* (Linn.).

Genus : *Harporhynchus* : 1 specimen ; Brown Thrush, *H. rufus* (Linn.).

Family : *Fringillidæ*.

Genus : *Passer*. 1 specimen ; House Sparrow, *P. domesticus* (Linn.).

Family : *Icteridæ*.

Genus : *Quiscalus*. 1 specimen ; Crow Blackbird ; *Q. purpureus* (Bartram).

Family : *Corvidæ*.

Genus : *Corvus*. 2 specimens, 2 species ; 1 Common Crow, *C. americanus*, and 1 English Jackdaw, *C. monedula*, Linn.

Genus : *Pica*. 1 specimen ; Magpie, *P. caudata*, Flem.

Order : PULLASTRÆ.

Family : *Columbidæ*.

Genus : *Streptopelia*. 16 specimens, 2 varieties ; 15 Ringdoves. *S. risoria* (Linn.); 1 Ringdove *S. risoria*, var. *alb.* (Linn.).

Family : *Cracidæ*.

Genus : *Crax*. 1 specimen ; Crested Curassow, *C. alector* Linn ; Genus : *Pauxi*.; 1 specimen ; Razor-billed Curassow, *P. mitu* (Linn.).

Order : GALLINÆ.

Family : *Pavonidæ*.

Genus : *Pavo*. 45 specimens ; Peacock, *P. cristatus*, Linn.

Family: *Numididæ*.

Genus: *Numida*. 55 specimens, 2 varieties; 54 Guinea Fowl, *N. meleagris* (Linn.); 1 Guinea Fowl, *N. meleagris*, var. *alb.* (Linn.).

Family: *Phasianidæ*.

Genus: *Gallus*. 12 specimens, 3 varieties; 7 Sebright Bantams; 2 Black Spanish Fowl, *G. domesticus*, Linn.; 3 Common Fowl, *G. domesticus*, Linn.

Genus: *Phasianus*. 2 specimens; English Pheasant, *P. colchicus*, Linn.

Genus: *Euplocamus*. 2 specimens; Silver Pheasants, *E. nyctimerus* (Linn.).

Family: *Perdridæ*.

Genus: *Lophortyx*. 2 specimens; California Quail, *L. californicus* (Shaw).

Order: BREVIPENNES.

Family: *Struthionidæ*.

Genus: *Rhea*. 5 specimens; South America Ostrich, *R. americana* (Lath.).

Order: GRALLÆ.

Family: *Ardeidæ*.

Genus: *Tigrisoma*. 2 specimens; Tiger Bittern, *T. cabanisi*, Heine.

Genus: *Botaurus*. 2 specimens; Bittern, *B. lentiginosus*, Steph.

Family: *Cancromidæ*.

Genus: *Cancroma*. 1 specimen; Arapapa or Boat-bill, *C. cochlearia*, Linn.

Family: *Ciconiidæ*.

Genus: *Ciconia*. 1 specimen, White Stork, *C. alba*, Linn.

Family: *Scolopacidæ*.

Genus: *Gambetta*. 1 specimen; Tell-tale, *G. melanoleuca*, (Gm.).

Family: *Rallidæ*.

Genus: *Rallus*. 1 specimen; Clapper Rail, *R. crepitans*, Gm.

Genus: *Gallinula*. 1 specimen; Purple Gallinule, *G. martinica*, Linn.

Order: LAMELLIROSTRES.

Family: *Anatidæ*.

Genus: *Cygnus*. 47 specimens, 2 species; 1 American Swan, *C. americanus*, Sharp.; 46 European Swans, *C. olor*, Gm.

Genus: *Anser*. 19 specimens, 2 varieties; 7 White and 12 Gray Chinese Geese, *A. cygnoides*, Linn.

Genus: *Bernicla*. 5 specimens; Canada Geese, *B. canadensis* (Linn.).

Genus: *Anas*. 21 specimens; 2 Mallard, *A. boschas*, Linn.; 19 White Ducks, *A. domesticus*.

Genus: *Aix*. 1 specimen; Summer Duck, *A. sponsa* (Linn.).

Genus: *Cairina*. 12 specimens, 2 varieties; 7 Brazilian Black Ducks, *C. moschata* (Linn.); 5 Hybrid Ducks.

Order: LONGIPENNES.

Family: *Laridæ*.

Genus: *Larus*. 2 specimens, 2 species; 1 Glaucous Gull, *L. glaucus*, Brunn.; 1 Herring Gull, *L. argentatus*, Brunn.

 REPTILIA.

Order: TESTUDINATA.

Family: *Emydoidæ*.

Genus: *Malacoculemys*. 1 specimen; Salt-water Terrapin, *M. palustris* (Ag.).

Genus: *Chrysemys*. 1 specimen; Painted Turtle, *C. picta*, (Gray).

Genus: *Cistudo*. 2 specimens; Box Turtle, *C. virginica* (Ag.).
Family: *Cinosternoidæ*.

Genus: *Thyrostermum*. 1 specimen; Mud Tortoise, *T. pennsylvanicum* (Ag.).

Order: SAMIA.

Family: *Crocodylidae*.

Genus: *Alligator*. 3 specimens; Alligator, *A. mississippiensis* (Gray).

Family: *Lacertinidae*.

Genus: *Lacerta*. 1 specimen; Green Lizard, *L. viridis* (Daub.)

Order: OPHIDIA.

Family: *Boidæ*.

Genus: *Eunectis*. 1 specimen; Anaconda, *E. marinus* (Wagler).

Genus: *Chilabothus*. 2 specimens; Yellow Snake, *C. inornatus*.

Family: *Crotalidae*.

Genus: *Crotalus*. 3 specimens, 2 species; 2 Rattlesnakes, *C. amissus* (Linn.); 1 Rattlesnake, *C. adamantus* (Beaur).

ARTICULATA.

Order: HYMENOPTERA.

Family: *Apiariæ*.

Genus: *Apis*. 3 colonies; Hive-Bees, *A. mellifica* (Linn.).

SUMMARY.

<i>Mammalia.</i>	<i>Aves.</i>	<i>Reptilia.</i>
Quadrumana... 10	Raptores..... 28	Testudinata... 5
Carnivora 41	Scansores..... 10	Sauria..... 4
Marsupialia.... 1	Insessores..... 17	Ophidia..... 6
Rodentia.....101	Rasores.....136	—
Pachydermata.. 6	Cursores..... 5	Total..... 15
Ruminantia....207	Grallatores.... 9	
—	Natatores.....107	
Total.....366	—	
	Total.....312	

GRAND TOTAL.

Mammalia.....	366
Aves.....	312
Reptilia.....	15
<hr/>	
Living collection.....	693
<hr/>	

NUMBER OF ORDERS, GENERA, AND VARIETIES.

	Orders.	Genera.	Varieties.
Mammalia.....	6	31	55
Aves.....	7	41	54
Reptilia.....	3	9	10
<hr/>		<hr/>	<hr/>
	16	81	119
<hr/>		<hr/>	<hr/>

LIST OF SPECIES

*Exhibited for the first time on the Central Park during the
Year 1868.*

MAMMALIA.

CARNIVORA:

- Leopard. *Felis leopardus*. Africa.
Puma, or American Panther. *Felis concolor*. N. America.
Wolf. *Canis occidentalis*. N. America.
Rasse. *Vevera rasse*. Java.
Grizzly Bear. *Ursus horribilis*. N. America.
Sun Bear. *Ursus malayanus*. India.

RODENTIA:

- Muskrat. *Fiber zibethicus*. N. America.
Sooty Paca. *Callogenys paca*. S. America.

PACHYDERMATA:

- Chinese Pig. *Sus crofa*. India.
White-lipped Peccary. *Dicotyles labiatus*. S. America.

RUMINANTIA :

Chinese Goat. *Capra hircus*. China.

AVES.

RAPTORES :

Goshawk. *Astur atricapillus*. N. America.

Saw Whet Owl. *Nyctale acadica*. N. America.

SCANSORES :

Ariel Toucan. *Ramphastos ariel*. Brazil.

Aracari. *Pteroglossus torquatus*. C. America.

INSESSORES :

Cat-bird. *Galeoscoptes carolinensis*. N. America.

Brown Trush. *Harporhynchus rufus*. N. America.

House Sparrow. *Passer domesticus*. Europe.

Crow Blackbird. *Quiscalus purpureus*. N. America.

Jackdaw. *Corvus monedula*. G. Britain.

RASORES :

Black Spanish Fowl. *Gallus domesticus*. Europe.

CURSORES :

Rhea. *Rhea americana*. S. America.

GRALLATORES :

Cariama. *Cariama cristatus*. S. America.

Bittern. *Botaurus lentiginosus*. N. America.

Yellow Legs. *Gambetta melanoleuca*. N. America.

Clapper Rail. *Rallus crepitans*. N. America.

Coot. *Fulica americana*. N. America.

NATATORES :

Mallard. *Anas boschas*. N. America.

Duck Hybrid. *Cairina* — ?

Herring Gull. *Larus argentatus*. N. America.

REPTILIA.

SAURIA.

- Eyed Lizard. *Laceras ocellata*. Europe.
 Green Lizard. *Lacerta viridis*. Europe.

OPHIDIA :

- Rattlesnake. *Crotalus adamantus*. N. America.

ARTICULATA.

HYMENOPTERA :

- Honey-bees. *Apis mellifica* : Europe.

LIST OF SPECIES

That have bred in the Central Park for the Year 1868.

MAMMALIA.

No. bred.

- 4 Prairie Wolves, *Canis latrans*. N. America.
 5 Esquimaux Dogs, *Canis familiaris*. N. America.
 2 Red Foxes, *Vulpus fulvus*. N. America.
 2 Raccoons, *Procyon lotor*. N. America.
 29 White Rats, *Mus musculus*. Europe.
 200 White Mice, *Mus musculus*. Europe.
 48 Guinea Pigs, *Cavia cobaya*. Brazil.
 7 Lap-eared Rabbits, *Lepus cuniculus*. Europe.
 1 American Elk, *Cervus canadensis*. N. America.
 6 Virginia Deers, *Cervus virginianus*. N. America.
 1 Cape Buffalo, *Bos caffer*. Africa.
 112 Southdown Sheep, *ovis aries*. England.

AVES.

No. bred.

- 20 Ringdoves, *Streptopelia risoria*. N. America.
 32 Pea-fowls, *Pavo cristatus*. Asia.
 100 Guinea-fowls, *Numida meleagris*. Guinea.
 2 Sebright Bantams, *Gallus bankiva*. Java.

- 9 White Swans, *Cygnus olor*. Great Britain.
 20 Brazilian Black Ducks, *Cairina moschata*. Brazil.
 2 Canada Geese, *Bernicla canadensis*. Canada.
 20 White Ducks, *Anas*. N. America.

LIST OF BIRDS INHABITING THE PARK.

The number of native birds on the Park is considerable. It is small in comparison with those that visit it during their spring and autumn migrations.

This list includes those species only that have been actually observed.

The nomenclature of the species in this list has been kindly furnished by George N. Lawrence, Esq., of New York.

Family Falconidæ.

1. *Hypotriorchis columbarius* (Linn.); Pigeon Hawk; fall and winter resident; rare.
2. *Tinnunculus sparverius* (Linn.); Sparrow Hawk.
3. *Accipiter cooperi* (Bon.); Cooper's Hawk; summer and fall resident; abundant.
4. *Accipiter fuscus* (Gm.); Sharp-shinned Hawk; fall and winter resident; abundant.
5. *Buteo borealis* (Gm.); Red-tailed Hawk; fall and winter resident; common.
6. *Buteo lineatus* (Gm.); Red-shouldered Hawk; permanent resident; common.
7. *Haliaeetus leucocephalus* (Linn.); Bald-headed Eagle; fall resident; very rare; one seen in the Deer Park for two months in the fall of 1866.
8. *Pandion carolinensis* (Gm.); Fish Hawk; fall resident; very rare; specimen obtained for Zoological Collection.

Family Strigidae.

9. *Bubo virginianus* (Gm.); Great-horned Owl; permanent resident; rare.
10. *Scops asio* (Linn.); Mottled Owl; permanent resident; abundant; build their nest in the crevices of the rocks in the Ramble.
11. *Otu wilsonianus* (Less.); Long-eared Owl; permanent resident; common.
12. *Brachyotus cassinii* (Brewer); Short-eared Owl; permanent resident; common.
13. *Nyctea nivea* (Daud.); Snowy Owl; very rare; only one seen in the Ramble.

Family Cuculidae.

14. *Coccygus americanus* (Linn.); Yellow-billed Cuckoo; summer resident; not abundant; breed.
15. *Coccygus erythrophthalmu* (Wils.); Black-billed Cuckoo; summer resident; not abundant.

Family Picidae.

16. *Picus pubescens*, Linn.; Downy Woodpecker; summer resident; rare.
17. *Sphyrapicus varius* (Linn.); Yellow-bellied Woodpecker; summer resident; rare.
18. *Melanerpes erythrocephalus* (Linn.); Red-headed Woodpecker; summer resident; rare.
19. *Colaptes auratus* (Linn.); Yellow-shafted Woodpecker; summer resident; common.

The Family Picidae mostly confine themselves to the Ramble, and leave very early in the season.

Family: Trochilidae.

20. *Trochilus colubris*, Linn.; Ruby-throated Humming-bird; summer resident; abundant.

Family: Cypselidæ.

21. *Chetura pelasgia* (Linn.); Chimney Swallow; spring and summer resident; very abundant.

Family: Caprimulgidæ.

22. *Antrostomus vociferus* (Wils.); Whip-poor-will; summer resident; rare.
 23. *Chordeiles popetue* (Vieill.); Night Hawk; spring and autumn resident; rare.

Family: Alcedinidæ.

24. *Ceryle alcyon* (Linn.); Belted Kingfisher; spring and summer resident; rare; a pair had a nest near the Terrace; brood brought out the first week in June.

Family: Tyrannidæ.

25. *Tyrannus carolinensis* (Linn.); King-bird; spring and summer resident; very abundant; breed each year; there is a great increase in the number of these birds.
 26. *Myiarchus crinitus* (Linn.); Great-crested Flycatcher; summer resident; common.
 27. *Empidias fuscus* (Linn.); Pewee, or Phœbe bird; spring and summer resident; very abundant; breed in the eaves of the rustic houses.
 28. *Contopus virens* (Linn.); Wood Pewee; summer resident; very abundant.
 29. *Empidonax minimus*, Bd.; Least Flycatcher; summer resident; rare.
 30. *Empidonax flaviventris*, Bd.; Yellow-bellied Flycatcher; summer resident; rare.

Family: Turdidæ.

31. *Turdus mustelinus*, Gm.; Wood Thrush; summer resident; abundant; breed.
 32. *Turdus pallasi* (Cab.); Hermit Thrush; summer resident; rare.

33. *Turdus swainsonii*, Cab.; Olive-backed Thrush; summer resident; rare.
34. *Turdus migratorius*, Linn.; Robin; permanent resident; very abundant; breed in the months of May and June.

Family: Saxicolidae.

35. *Sialia sialis* (Linn.); Blue-bird; spring and summer resident; abundant; breed in the months of May and June.

Family: Sylviidae.

36. *Regulus calendula* (Linn.); Ruby-crowned Wren; summer resident; common; breed.
37. *Regulus satrapa*, Licht.; Golden-crested Wren; summer residents; not numerous; breed.

Family: Motacillidae.

38. *Anthus ludovicianus* (Gm.); Titlark; summer and fall resident; very abundant; frequent and build their nests on the Green.

Family: Sylvicolidæ.

39. *Mniotilta vria* (Linn.); Black and White Creeper; summer resident; rare.
40. *Parula americana* (Linn.); Blue Yellow-backed Warbler; summer resident; rare.
41. *Geothlypis trichas* (Linn.); Maryland Yellow-throat Warbler; summer resident; common; breed.
42. *Icteria viridis* (Gm.); Yellow-breasted Chat; summer resident; common.
43. *Helminthophaga pinus* (Linn.); Blue-winged Yellow Warbler; summer resident; very rare.
44. *Helminthophaga chrysoptera* (Linn.); Golden-winged Warbler; summer resident; very rare.
45. *Seiurus aurocapillus* (Linn.); Golden-crowned Thrush; summer resident; abundant.

46. *Seiurus noveboracensis* (Linn.); Water Thrush; summer and autumn resident; common; leave late in the fall; frequent the banks of the Lake.
47. *Seiurus ludovicianus* (Aud.); Large-billed Water Thrush; summer and fall resident; not common.
48. *Dendroica canadensis* (Linn.); Black-throated Blue Warbler; summer resident; not common.
49. *Dendroica blackburniæ* (Gm.); Blackburnian Warbler; summer resident; not common.
50. *Dendroica castanea* (Wils.); Bay-breasted Warbler; summer resident; not common.
51. *Dendroica pennsylvanica* (Linn.); Chestnut-sided Warbler; summer resident; common.
52. *Dendroica striata* (Forst.); Black-poll Warbler; summer resident; not common.
53. *Dendroica æstiva* (Gm.); Yellow Warbler; summer resident; abundant.
54. *Dendroica maculosa* (Gm.); Black and Yellow Warbler; summer resident; not common.
55. *Dendroica tigrina* (Gm.); Cape May Warbler; summer resident; rare.
56. *Dendroica discolor* (Vieill.); Prairie Warbler; summer resident; abundant.

There are probably more of the species *Dendroica* to be found in the Park, but they have not been observed.

57. *Myiodiotes mitratus* (Gm.); Hooded Warbler; summer resident; very rare.
58. *Setophaga ruticilla* (Linn.); Redstart; summer resident; abundant; breed.

Family: Tanagridæ.

59. *Pyrrhula rubra* (Linn.); Scarlet Tanager; spring and summer resident; rare.

Family: Hirundinidæ.

60. *Hirundo horreorum*, Bartram; Barn Swallow; spring to fall residents; very abundant; breed.
61. *Hirundo bicolor*, Vieill.; White-bellied Swallow; spring to fall resident; very abundant; breed.

62. *Cotyle riparia* (Linn.); Bank Swallow; spring and summer resident; rare.
63. *Progne purpurea* (Linn.); Purple Martin; spring to fall residents; many breed on the Park.

Family : Ampelidæ.

64. *Ampelis cedrorum* (Vieill.); Cedar-bird; summer resident; abundant.

Family : Laniidæ.

65. *Collyrio borealis* (Vieill.); Great Nothern Shrike; fall and winter resident; rare.

Family : Vireonidæ.

66. *Vireosylvia olivacea* (Linn.); Red-eyed Fly catcher; summer resident; common.
67. *Vireosylvia gilva* (Vieill.); Warbling Flycatcher; summer resident; not common.
68. *Vireo noveboracensis* (Gm.); White-eyed Vireo; summer resident; rare.
69. *Vireo solitarius* (Wils.); Blue-headed Flycatcher; summer resident; very rare.

Family : Turdidæ.

70. *Mimus polyglottus* (Linn.); Mocking-bird; accidental visitors; very rare; one escaped from the neighborhood, and remained in the Ramble for three months.
71. *Galeoscoptes carolinensis* (Linn.); Cat-bird; spring and summer resident; exceedingly abundant; breed in the Park.
72. *Harporhynchus rufus* (Linn.); Brown Thrush; summer resident; common; breed in the Park.

Family : Troglodytidæ.

73. *Troglodytes aedon*, Vieill.; House Wren; summer resident; not numerous; build their nests in the eaves of the rustic houses.

74. *Troglodytes hyemalis* (Wils.); Winter Wren; summer resident; not common.

Family: Certhiidae.

75. *Certhia americana*, Bon.; American Creeper; summer resident; abundant.

Family: Paridae.

76. *Lophophanes bicolor* (Linn.); Tufted Titmouse; summer resident; common; breed.

77. *Parus atricapillus*, Linn.; Black-cap Titmouse; summer resident; common.

78. *Sitta carolinensis*, Gm.; White-bellied Nuthatch; summer resident; common.

79. *Sitta canadensis*, Linn.; Red-bellied Nuthatch; summer resident; common.

Family: Alaudidae.

80. *Alauda arvensis* (Linn.); Skylark; rare; six pairs of English Skylarks were let loose on the meadows, by Mr. J. A. Jones, in the year 1867.

Family: Fringillidae.

81. *Carpodacus purpureus* (Gm.); Purple Finch; spring to fall resident; not common.

82. *Chrysomitris tristis* (Linn.); Yellow-bird; spring to autumn resident; exceedingly abundant; breed in numbers.

83. *Aegiothus linaria* (Linn.); Lesser Red-poll; winter resident; very rare.

84. *Plectrophanes nivalis* (Linn.); Snow Bunting; winter resident; abundant.

85. *Coturniculus passerinus* (Wils.); Yellow-winged Sparrow; summer resident; rare.

86. *Zonotrichia leucophrys* (Forst.); White-crowned Sparrow; summer resident; rare.

87. *Zonotrichia albicollis* (Gm.); white-throated Sparrow; summer resident; rare.

88. *Junco hyemalis* (Linn.); Snow-bird; winter resident; abundant.
89. *Serinus canaria* (Linn.); Canary-bird; accidental visitor; rare; several have escaped at various times from houses in the vicinity of the Park.
90. *Spizella monticola* (Gm.); Tree Sparrow; summer resident; abundant; breed.
91. *Spizella pusilla* (Wils.); Field Sparrow; spring to fall resident; rare.
92. *Spizella socialis* (Wils.); Chipping Sparrow; permanent resident; exceedingly abundant; build their nests in the grass and small bushes.
93. *Melospiza melodia* (Wils.); Song Sparrow; spring to fall resident; a few remain during the winter; common.
94. *Melospiza palustris* (Wils.); Swamp Sparrow; summer resident; rare.
95. *Passerella iliaca* (Merr.); Fox-colored Sparrow; spring and summer resident; rare.
96. *Passer domesticus* (Linn.); House Sparrow; permanent resident; exceedingly abundant; several of these sparrows were let loose on the Park by the Commissioners, in March, 1864, from which they have increased to thousands. They not only breed in the Park, but also under the eaves of buildings, situated within a circuit of ten miles from it.
97. *Euspiza americana* (Gm.); Black-throated Bunting; summer resident; rare.
98. *Cyanospiza cyanea* (Linn.); Indigo-bird; summer resident; abundant.

Family: Icteridæ.

99. *Dolichonyx oryzivorus* (Linn.); Bob-o-link, or Reed-bird; spring and summer resident; not abundant.
100. *Molothrus pecoris* (Gm.); Cow Blackbird; spring and summer resident; common.

101. *Agelaius phoeniceus* (Linn.); Red-wing Blackbird; spring and summer resident; common.
102. *Sturnella magna* (Linn.); Meadow-lark; spring to fall resident; abundant; build their nests in the grass.
103. *Icterus spurius* (Linn.); Orchard Oriole; spring and summer resident; breed and leave early in the season.
104. *Icterus baltimore* (Linn.); Baltimore Oriole; spring and summer resident; abundant; breed.
105. *Scolecophagus ferrugineus* (Gm.); Rusty Blackbird; spring and summer resident; not common.
106. *Quiscalus purpureus* (Bartram); Crow Blackbird; spring and summer resident; not common.

Family: Corvidæ.

107. *Corvus americanus*, Aud., Common Crow; permanent resident; exceedingly abundant, especially in the winter.
108. *Cyanocitta cristata* (Linn.); Blue Jay; summer resident, not common.

Family: Columbidae.

109. *Ectopistes migratoria* (Linn.); Wild Pigeon; make their appearance in flocks during their transigrations in the spring and fall months.
110. *Zenaidura carolinensis* (Linn.); Carolina, or Common Dove; not common.

Family: Tetraonidæ.

111. *Bonasa umbellus* (Linn.); Ruffed Grouse; spring and summer resident; not common; to be found in the Ramble.

Family: Perdiciidæ.

112. *Ortyx virginianus* (Linn.); Quail; permanent resident abundant; breed.

Family : Ardeidæ.

113. *Ardetta Exilis* (Gm.); Least Bittern ; summer resident ; not common ; breed.
114. *Botaurus lentiginosus*, Steph.; Bittern ; summer resident ; common ; breed.
115. *Butorides virescens* (Linn.); Green Heron ; summer resident ; rare.
116. *Nyctiardea gardeni* (Gm.); Night Heron ; summer resident ; very rare ; specimen obtained for Zoological Collection.

Family : Charadriidæ.

117. *Charadrius virginicus*, Borck., Golden Plover ; spring and fall visitants during their transmigrations ; remain longer during the fall ; common.
118. *Ægialites vociferus* (Linn.); Killdeer ; summer resident ; common.
119. *Philohela minor* (Gm.); American Woodcock ; summer resident ; not common ; to be found in the Ramble ; six pair bred there the past year.
120. *Gallinago wilsonii* (Temm.); Wilson's Snipe ; summer resident ; common ; breed ; to be found along the banks of the Lake : leave about the latter end of September.
121. *Rhyacophilus solitarius* (Wils.); Solitary Sandpiper ; summer resident ; rare.
122. *Tringoides macularius* (Linn.); Spotted Sandpiper ; summer resident ; rare.

Family : Rallidæ.

123. *Rallus virginianus*, Linn.; Virginia Rail ; summer resident ; very rare ; specimen obtained for Zoological Collection.
124. *Fulica americana*, Gm.; Coot ; fall resident ; not common ; leave at the first heavy frost.

Family : Anatidæ.

125. *Anas boschas*, Linn.; Mallard ; Fall resident ; not common ; one duck obtained for Zoological Collection.
126. *Aix sponsa* (Linn.); Summer Duck ; fall resident ; common.
127. *Bucephala albeola* (Linn.); Butter Ball ; fall resident ; rare.

Family : Laridæ.

128. *Larus Marinus*, Linn.; The Great Black-backed Gull ; fall resident ; rare.

Family : Colymbidæ.

129. *Colymbus torquatus*, Brunn.; the Great Northern Diver ; fall resident ; common.

DECEMBER 31, 1868.

APPENDIX F.

NOTES ON THE EDUCATIONAL DEPARTMENT OF THE PARK.

The value of the Central Park to the citizens of New York as a place for attractive and elegant recreation, and its salutary effects upon the community, are already well known, and the facilities it affords to the children of the Common Schools for varied and healthful exercise are appreciated. But its uses as a means of popular intellectual improvement, and its importance as an educational agency in connexion with the great school system of the city are by no means yet fully recognized.

The present age is distinguished by the marvellous extent to which it has developed the various branches of science and the inventive and constructive arts which depend upon scientific principles. The effect of this remarkable scientific development is slowly reaching the very habits of mind, so that the people of the present day may be said to think differently from those who preceded them. The consequence of this change has been that mental cultivation and the methods of education are at length beginning to be influenced, and the question of a more scientific culture for the masses of the people is receiving increasing consideration by the foremost nations in the world.

As respects the abundance of the provision for diffusing knowledge among the masses of the people, this country takes confessedly the lead of all others, and the question which now chiefly exercises the minds of our thoughtful educators is, how best to introduce the study of nature or the elementary portions of science into Common Schools.

This step it is universally felt, must now be taken, but it is far from being an easy one to take. It involves a very considerable change in the methods of instruction. The notion current in the past, and still too generally prevalent, that all that is necessary to education is books to be memorized and teachers to keep things quiet and hear the recitations, is gradually being outgrown. It is more and more seen that the duty of education is to bring the pupil into direct relation with things themselves, that he may reflect and exercise judgment upon them. But the book method is by far the

simpler and easier, and reduces the office of the teacher to the very minimum of care, preparation and effort. On the other hand, to impart instruction by means of real objects, requires actual and accurate knowledge on the part of the oral instructor; and, moreover, if the objects of nature are to be directly studied, they must either be brought to the class-room or the classes must adjourn to the vicinity of the things themselves. This involves either an extra expense or a disturbance of the habitual order of school pursuits. The movement is therefore not without its embarrassments although it is universally admitted that they can and must be overcome. Already the system of object-teaching has been introduced, not only into the Public Schools of this city, but into many throughout the country, and a disposition is more and more apparent to enter into whatever improvements are demanded in this direction. The time has therefore arrived when the attention of all interested in education in this city may be fitly drawn to the Central Park—to what is already accomplished there, and to what is further preparing to be done, to render it a great storehouse of appliances for the mental improvement of the youth of our city.

The necessity of giving more attention to Natural History in our schools is everywhere felt. While the first object in these institutions is to teach the arts of reading, writing and rudimental calculation, which are practically indispensable to all, there are few who will insist that school instruction shall be rigidly limited to these branches. The exercise of the mind in other ways and upon other subjects—the storing it with varied and interesting ideas, and the cultivation of a larger number of faculties, are now recognized to fall within the legitimate sphere of Common School instruction. Natural History, pursued as a regular branch of study, is admirably suited to this end. It is very attractive to the young; when studied methodically it affords an excellent training to the mental powers, and it not only fills the mind with interesting subjects of contemplation, but the knowledge thus acquired will be of permanent and growing interest through life.

The study of Botany as a branch of Natural History ranks first, perhaps, in interest and importance among the sciences which should be introduced into Common Schools. Its chief claim

is, that it is preeminently fitted to train the observing faculties. The lack of provision for cultivating habits of close and accurate observation is confessedly the great deficiency of our intellectual system. There is an observation with the eye merely, and there is an observation with the mind. To teach the young to recognize with the mind, to discriminate and compare; ought certainly to be one of the chief offices of the teacher. In its adaptation to this use, Botany surpasses all other subjects. It is besides the most perfect of all the sciences in the terms it employs, and there is no mental discipline more valuable than the art of using language with precision, which this study cultivates with peculiar effect.

But the value of Botany, merely memorized out of books, when the pupil's mind is not directly exercised upon the living objects, is extremely small. The memory is crammed with words that have no vital meaning, and the habits of thinking become loose, vague and injurious. The higher intellectual interest of plants springs from their relationships. They exhibit all grades and shades of affinity and diversity, and to trace these out requires, first careful scrutiny of the parts of plants and the comparison of different kinds. Thus the perceptions are sharpened and the ideas widened, while both the knowledge obtained and the mental aptitudes acquired in the process, are positive and valuable.

But these desirable results can only be obtained where classes have access to a great number and variety of specimens. These the Central Park affords. Indeed, if the teachers of New York had indicated their most urgent educational want for the purpose of teaching this subject, it would be exactly what the Park supplies. Its rich array of trees, shrubs and flowers, in their season, are not only objects of attention from their varied beauty, but they may minister to a still further and most important use as objects of engaging study to the youth of the schools of New York.

The study of the Zoological branch of Natural History, or of the Animal Kingdom, while perhaps inferior to Botany as a means of early and systematic mental cultivation, has still higher attractions. The interest in animated nature is inexhaustible. There is something always fascinating to young and old in the

endlessly varied aspects, the wonderfully diversified movements, and the almost infinite differences of instinct and intelligence displayed by the multitudinous inhabitants of earth, air and water. But when we direct attention to their internal structure and economy, to their analogies and affinities, and to the harmony and unity of plan which all the animated tribes are seen to illustrate, a new world of truth is opened to us and we enter upon one of the most engaging studies which can occupy the human mind. Nothing, indeed, can be better fitted to awaken a reverent admiration for the wisdom of the Creator, for as our great naturalist has beautifully said, "These are but the thoughts of the Almighty uttered in material forms." The subject of zoology has been too long neglected in our common and public schools, although there is evidence of a growing recognition of its claims.

But here, also, it is of the first necessity that classes should have access to the real objects of their inquiries, and not to be tied forever to books. In this way only can the verities of knowledge be substituted for the semblance of knowledge. The formation of a Zoological Garden has been included in the plan of the Central Park. A beginning has been made in the collection of animals, and it is designed in time to develop this feature of the establishment into a completer form. Beyond its use as a never failing source of interest and pleasurable gratification to the public will be its value as an addition to the educational resources of our City.

But, besides the living varieties of plants and animals, the plan of the Park embraces the element of museums by which the study of Natural History can be pursued, if desired, through the medium of restored and preserved specimens, prepared skeletons and other interesting and instructive objects. The educational use of *Natural History collections* for the illustration of Geography, Geology, Mineralogy, Botany, Zoology and Ethnology, is universally recognized. Regarding the location of museums, Dr. J. D. Hooker, Director of the Kew Gardens, in his late presidential address before the British Association, observes: "Much of the utility of museums depends on two conditions often strangely overlooked, viz., their situation, and their lighting and interior arrangements. The provincial Museum is too

often huddled away almost out of sight, in a dark, crowded, dirty thoroughfare, where it pays dear for ground rent, rates and taxes, and cannot be extended. Such localities are frequented by the townspeople only when on business, and when they consequently have no time for sight-seeing. In the evening or on holidays, when they would visit the Museum, they naturally prefer the outskirts of the town to its centre. . . . The museum should be in an open, grassed square or park, planted with trees, in the town or its outskirts; a main object being to secure cleanliness, a cheerful aspect, and space for extension. Now vegetation is the best interceptor of dust, which is injurious to the specimens as well as unsightly, whilst a cheerful aspect grass, and trees will attract visitors, and especially families and schools."

Another branch of Natural History of almost romantic interest, is that of the forms of life that once inhabited the earth, but are now extinct. For thousands of years men have dwelt upon the earth without even suspecting that it was a mighty tomb of animated races that once flourished upon it as the living tribes do now. Only in very recent times, which men still remember, was the discovery made that the earth has had a vast antiquity; that it has teemed with life for countless ages, and that generations of the most gigantic and extraordinary creatures lived through long geological periods, and were succeeded by other kinds of creatures equally colossal and equally strange. Huge fishes, enormous birds, monstrous reptiles, and ponderous uncouth mammals had possession of a world, in which man, if there, had not yet established a record of his pre-eminence. The vestiges of these creatures are still found in the rocks, Their fossil skeletons have been exhumed, and in the light of modern science their diversities have been determined. They are all found to be but varieties of existing forms, but manifestations of the present and all-pervading plan.

Such has been the interest awakened in this extraordinary subject that there has long been a desire in the scientific world that representatives of these extinct races should be restored in their natural outlines and full proportions, and this task was accordingly first undertaken in England in 1853. It is important to note that the spirit which inspired this movement was in the

broadest sense educational. The great Exhibition which took place in London, in 1851, was designed to bring together the industrial products of all nations, and was the first international attempt of the kind. At its close the Crystal Palace building was purchased and removed to Sydenham Park, seven miles from London, the design being to make it a great Polytechnic Museum, in which should be placed every species of object that could aid the acquirement of knowledge by visual means. It was to be a repertory of all resources for object-teaching. Art and Nature, Life and Representation, were to be combined in such natural relations as should suggest the connexion of animals with plants, and these with models of human beings belonging to the same localities, together with their implements, weapons, and costumes, all tending to illustrate the inhabitants and products of the various countries of the world.

In the grounds of the Crystal Palace some of the gigantic inhabitants of the ancient world were represented in immediate relation with the geological strata in which their fossil remains were found. This plan was carried out on an ample scale.

The illustrations consist of sections of rocks demonstrating the order of succession of strata in time, commencing with the Devonian. The lower coal-bearing strata are next represented, then the Permian and the triassic beds, followed by the oolitic, wealden, cretaceous, and tertiary systems. All these constructions consist of the real rocks, brought with great care from their respective localities and so placed as to preserve their natural features. Models of the largest animals, the fossils of which belong to these respective formations, were constructed and distributed in groups to illustrate their geological places. They were thirty-six in number, and were placed on two islands. The result of these reconstructions has eminently fulfilled the purpose of their projectors. Although the Sydenham Park is situated several miles from the metropolis, and notwithstanding that there is a charge for admission, yet hundreds of thousands of people have visited it annually for the last fifteen years, while the animal restorations have been a permanent element of attraction, and a source of valuable instruction to multitudes who would have gained this kind of knowledge in no other way.

It has been determined by the Commissioners of the Central

Park to extend its educational uses by executing a plan in some respects similar to the English, but including some important original features, and Mr. Waterhouse Hawkins, whose successful experience in making the first and still unique constructions in England, has admirably qualified him for the undertaking, has entered upon the work. It was deemed desirable that the fossils to be restored should be those illustrating ancient life upon the North American Continent. Mr. Hawkins has, accordingly, during the past summer, visited several of the leading Palæontological collections of the country to ascertain their fossil resources. The depository containing the fossil remains most desirable for entering upon his work was that of the Museum of the Academy of Natural Sciences at Philadelphia. Permission having been kindly granted by the Trustees and Board of Curators of the Philadelphia Institution to Mr. Hawkins to make moulds of the fossils in their possession, such moulds were taken of the parts of a fossil skeleton of a gigantic and remarkable animal known as the *Hadrasaurus Foulkii*, a creature with reptilian characters, twenty-six feet in length, and fourteen in height, found in the beds of New Jersey. The missing portions of the bony system were constructed in harmony with the discovered parts, and a complete model set up and presented by Mr. Hawkins to the Museum of the Academy of Sciences in Philadelphia, and was accepted by that body, Nov. 17th, 1868.

It may be observed that the moulds of the entire skeleton of this gigantic creature, now the property of the Commissioners of the Park, are valuable as a medium of exchange with other institutes for fossils which may form the nucleus of a Geological Museum, that may arise in connexion with the restorations now being made for the Central Park.

This is perhaps one of the most unique and remarkable specimens yet discovered of American fossils. It has been thought best to make the complete restoration in two positions, which will form parts of a larger group.

In consideration of the variable climate, and the duration of the winter in New York, it has been resolved by the Commissioners that the restorations shall be erected within the shelter of a permanent building.

CORRESPONDENCE RESPECTING THE RESTORATION OF EXTINCT
ANIMALS.

OFFICE OF THE BOARD OF COMMISSIONERS
OF THE CENTRAL PARK,
BANK OF COMMERCE BUILDING, 31 NASSAU ST.,
NEW YORK, May 2d, 1868.

DEAR SIR :

Recognizing the interest that has long attended your restorations of the forms of extinct animals in Europe, the Commissioners of the Central Park have thought that a similar work in the direction of reconstituting the phenomena of the ancient epochs of this continent would be of equal scientific value, and of especial interest in an educational point of view.

The admitted advantages of an exhibition of a rehabilitated animal over one showing the mere remains of its fossil frame, are not to be questioned ; and as this improved method of bringing before us creatures of a past age is chiefly due to your skill and scientific labors, the Commissioners of the Park are desirous to make at least a commencement in this direction, if they can feel assured of your co-operating interest, and supervising skill and advice.

It gives me great pleasure in their behalf to propose to you to undertake the resuscitation of a group of animals of the former periods of the American continent.

Should your engagements be such as to admit of your entering upon this work, that will so well supplement your previous achievements in the same department, I think I may promise you the sympathy and support of the scientific men of this country, and that museums and collections of fossil treasures, public and private, will be freely opened for such

examinations as you may desire to make in the prosecution of this interesting undertaking.

With great respect,

ANDW. H. GREEN,

Comptroller of the Park.

B. WATERHOUSE HAWKINS, Esq.

NO. 1 IRVING PLACE, COR. EAST 14TH ST.,
NEW YORK CITY, 9th of May, 1868.

DEAR SIR :

I have received your favor of May 2d, proposing on behalf of the Commissioners for the Central Park of New York, the restoration of a group of ancient fossil animals in the grounds under their control, where art has already accomplished so much for public pleasure and improvement.

The interest in the remains of ancient animal life which Geology has revealed within the last century is world wide, and almost romantic in its influence upon the imagination, and I quite agree with you that there can hardly be a question as to the advantage of representing these remains, clothed in the forms which science now ventures to define.

The restorations which were committed to my charge in the Crystal Palace Park at Sydenham, were the first efforts of the kind ever attempted, and their acknowledged success, both in commanding the cordial approval of scientific men, and also a large measure of public appreciation, encourages me to hope that a similar enterprise may meet with equal favor on this side of the Atlantic.

In regard to the educational value of those restorations to which you are pleased to refer, I would say, that if it was marked and most decisive in England, notwithstanding that

their situation was several miles from London, where they were only accessible through a charge for admission, it may be assumed that the benefits will be greatly enhanced, where the animals, conspicuously placed in your grand Park, would be freely open to all. Nor do I fail to recognize the eminent advantages which result from that higher condition of popular intelligence for which this country is pre-eminently distinguished.

Your kind intimation that I may expect the favor and sympathy of the scientific men of the United States in carrying out this work is very gratifying to me, as I came among you a stranger scarcely expecting to resume my former labors, under such auspicious circumstances, in a foreign country, while my experience of the most hospitable kindness, and a general interest manifested in those subjects to which I have devoted my life, confirms your assurance that the aid and support I so greatly need will be generously accorded.

Sincerely appreciating this flattering evidence of your confidence, I accept the proposal, and am prepared to enter at once upon the preliminary steps of the undertaking.

With the highest consideration,

I am dear sir,

Yours faithfully,

B. WATERHOUSE HAWKINS.

TO ANDREW H. GREEN, Esq.,

Comptroller of the Central Park of New York.

REPORT ON THE PROGRESS OF THE FOSSIL RESTORATIONS.

To the Board of Commissioners of the Central Park :

GENTLEMEN,—My engagement with the Commissioners of the Central Park having commenced on the 18th of May last, the question immediately arose for decision as to the special group of extinct animals with which I should commence my restorations.

In consultation with the Commissioners, and in accordance with their letter of the 2d of May, 1868, it was concluded that it would be more desirable and instructive that I should attempt to reproduce the original forms of life inhabiting the great Continent of America, rather than repeat the European forms that had been already illustrated in the Palace Park at Sydenham, in England.

Under these circumstances, it was necessary for me, at the outset, to make an exhaustive survey of the fossil materials to be found in the different scientific collections scattered through the country.

My examinations of the museums at Washington, New Brunswick, Albany, New Haven, and Philadelphia, occupied the next two months ; every facility was offered me at the different institutions I visited for study. I found in each collection fossils that were interesting, and in New Brunswick some unique specimens of considerable value in reference to the special purpose I had in view.

In Philadelphia, however, at the Academy of Natural Sciences, I not only found a magnificent natural history collection of a general character, but a rich storehouse of fossil treasures of special value for the purpose of illustrating the gigantic forms of life that originally inhabited this continent.

This collection, as had already been indicated by Dr. Leidy, demonstrated the relationship that existed between the ancient American Fauna and the long studied Dinosaurs of Europe, and it was evident that here, and here only, I could expect to find the new material I was in search of for the reproductions I had

engaged to make for your Commission. I therefore thought it desirable for the time being to reside in Philadelphia.

I at once commenced a series of careful studies by drawings and descriptions of all the fragments of the fossil remains of *Hadrosaurus Foulkii*, of Leidy, and *Laelaps aquilunguis*, (Cope.) which were the first specimens I studied for the purpose of the illustrations on the Central Park.

I was thus occupied till early in August, at which time, having learned that some valuable fossil skeletons of large animals were preserved in the museums in Chicago, I visited that place, for the purpose of examining these fossils, but found that although very interesting, they belonged to a comparatively recent period, and had no direct bearing on the individual studies on which I was at that time engaged: I therefore returned to Philadelphia, and renewed my work on the fossil remains of the *Hadrosaurus* and *Laelaps*.

At this particular time I found that the curators of the Academy were occupied in the development of a fossil marine saurian upwards of forty feet long, recently received from Kansas. This specimen was new to science, and in every way worthy of being added to the illustrations for the Central Park. I therefore thought it desirable to postpone my other work for the time being to give every aid in my power to the development of this new fossil.

The extrication from the matrix of the characteristic parts of this fragile but invaluable specimen was intrusted to me, and as the manipulation required, was found to be of a very delicate character, much time was occupied in arriving at a successful result.

The fossil, however, is now in condition to be duplicated, and the full privilege of moulding was obtained from the Board of Curators, and it can now be availed of by the Commissioners, if it be decided to reproduce this particular example in the Park.

Early in September I commenced the work of moulding every individual fragment of the *Hadrosaurus*; the permission to do this was only accorded on condition that the moulds should be taken without the slightest injury to the specimens, or any mark of any kind being left on their surface. This involved the necessity for an elaborate preparation of each individual fossil to

protect its surface from the action of the plaster in the operation of moulding. To do this effectually, I had to envelope every separate fragment in a thin paper tissue before placing it in the hands of the operator.

The fossil remains amounted to about one third of the actual bones of the animal, and while the work of the moulders was in progress I commenced the modelling of the missing parts, and by the end of October I had complete casts from all the moulds of the actual fossils, and also from the restorations I had made.

I had now in the interest of the Park been taking advantage for several months of the invaluable opportunity and facilities that were accorded to me by the Philadelphian Academy, of which I had in the meantime become a member, and I was desirous, if possible, of making on behalf of your Commission some recognition of the fact that would be acceptable to the Academy. I therefore offered to erect in their museum, at my individual expense, a complete skeleton of the Hadrosaurus, placing every actual fossil fragment in its relative position, and supplying all deficiencies with casts of the restorations I had been lately occupied in making. This offer having been accepted, I commenced the work at once, and on the 21st of November had the satisfaction of presenting it complete to the trustees and curators of the Academy.

The presentation was, however, accompanied with a reservation to the Commissioners of the Park of the exclusive right to take moulds of the *restored parts*, as I considered these moulds to be a property that would hereafter prove to have a direct money value, as they are at all times available for exchange with other institutions. Having now completed my studies for three animal forms, recently new to science, my labors at Philadelphia were finished for the time being.

I returned to New York on the 4th of December, having first forwarded all the moulds I had obtained to the Central Park.

On the 7th of December I commenced work with the new casts of the restored skeleton of Hadrosaurus, and also the clay model of one of the rehabilitated forms that is to constitute one of the actual constructions included in the collection.

It will thus be seen that it has been found practicable to give at the outset a distinctly American character to the work for the

Central Park, on which I have been engaged during the latter seven months of the past year, and it is a matter of congratulation that the liberality of men like Parker, Foulke, and Turner, and the quite recent scientific labors of Leidy, Cope, Marsh, Newbury, and others, have paved the way for a successful commencement of the enterprise undertaken at this time by your Commission in reference to the popularization of this interesting branch of science.

I have the honor to be, Gentlemen,

Your obedient servant,

B. WATERHOUSE HAWKINS.

February, 1869.



THE HADROSAURUS.

DESCRIPTION OF THE RESTORED SKELETON OF THE GREAT HERBIVEROUS LIZARD, HADROSAURUS.

The skeleton is that of a herbivorous reptile which existed in a remote age of the world, known to geologists as the Cretaceous period. At this time the Atlantic coast of the United States "extended from a point in New Jersey to the south-east of New York city, across to the Delaware River, whose course is followed: this river, therefore, emptied into the Atlantic at Trenton, and the regions of the Delaware and Chesapeake Bays were out at sea. From the Delaware it continued south-westward, at a distance of 60 miles or more from the present coastline between New Jersey and South Carolina. It next turned westward, being about 100 miles from the Atlantic in Georgia, nearly 200 miles from the Gulf in Alabama, and still more remote from the western Gulf shore in Texas. The Appalachians stood at a less elevation than now, by 60 to 100 feet.

"The Gulf of Mexico was prolonged northward, along the valley of the Mississippi, nearly to the mouth of the Ohio, making here a deep bay. Into it the two great streams entered, with only the mouth in common; and probably the Ohio was the larger, as its whole water shed had nearly its present elevation and extent, while the Mississippi area was limited. More to the westward, from the region of Texas, the Gulf expanded to a far greater breadth and length, stretching over much of the Rocky Mountain region, which was therefore so far submerged. It reached at least to the head-waters of the Yellow-stone and Missouri (which rivers were, therefore, not in existence); and, judging from isolated observations in British America, the waters may have continued north-westward to the Arctic seas, at the mouth of Mackenzie River, where beds of this period occur." (Dana.)

The remains from which the restored skeleton are in part composed were discovered at Haddonfield, Camden Co., New Jersey, 5 miles from Philadelphia, in the autumn of 1858. Mr. W. P. Foulke, a member of the Academy, while passing the season at Haddonfield, "learned that one of his neighbors, Mr.

John E. Hopkins, while digging marl upon his farm, about twenty years ago, had found some bones. These were described as vertebræ, and as being of large size and very numerous. Mr Hopkins being young at the time of the discovery, and not specially interested in such subjects, had permitted visitors to carry away the fossils; so that none remained in his own possession, nor could he remember the names of any of the persons by whom the vertebræ had been taken. According to his recollection, no head had been found, nor any other bones than those of the spine, except one, which was said by him to have resembled, in general respects, a 'shoulder blade.' It appeared, then, not improbable that upon digging around the old pit, (which was sixteen feet long and eight feet wide,) a head, or at least a portion of one containing teeth, might be obtained. Considering the geological age of the formation upon which Haddonfield stands, and that specimens of *Mosasaurus* have been discovered in places not very remote from the village, there appeared sufficient motive for exploration. Mr. Hopkins, with an intelligent appreciation of the object proposed, gave to Mr. Foulke, with prompt liberality, permission to dig in any part of the farm, and to take away whatever fossils might be thus procured. There was some difficulty in ascertaining the place of the old excavation. It had been made in the bed of a narrow ravine, in which a brook flows eastwardly into the south branch of Cooper's Creek; but the pit had long since been filled to the common level of the bed, and it was in like manner overgrown with grass, shrubs and young trees, so as to be undistinguishable by the eye. After conference with one of the diggers who had been employed at the time of the discovery, (whose indication proved to be inaccurate,) and after a careful survey of the vicinage by Mr. Hopkins, a party of experienced marl diggers were set at work; and after one day's preliminary trial, the eastern side of the old pit was detected. In conformity with Mr. Hopkins' recollection of the manner in which the vertebræ lay, the party of diggers was shifted to the western side of the old pit. The superficial deposit overlying the marl here was only about four feet thick; the ravine being between twenty and thirty feet deep. At nearly four feet further depth, a thin stratum of decomposed shells was passed; and at about two feet

below this, overlying and intermixed with another stratum of shells, the workmen came upon a pile of bones—the same now before the Academy. The total depth from the surface was between nine and ten feet.

“The marl being tenacious, great care was requisite to extricate the fossils. With a small trowel and a knife, the bones were carefully dissected from their bed, and from one another. A sketch was made of their position, and some measurements were taken of them, in anticipation of the contingency of their fracture in the attempt to remove them. Several lines of transverse fracture were observable before their position was changed. Each bone was separately transferred to a board, and thus carried from the pit, and then wrapped in a piece of coarse cloth. Thus enveloped it was laid upon a thick bed of straw in the bottom of a cart; and the whole were safely transported in this way, about three quarters of a mile, to Mr. Foulke’s residence. A small tooth and some fragments of a jaw were found with the other specimens.

“Mr. Isaac Lea and Dr. Leidy were informed of the discovery, and they promptly visited the excavation. Their opinion of the scientific value of the fossils justified further exploration; and the diggers were kept at work, from time to time as the weather permitted, during the month of October.

“Another tooth having been accidentally turned up by Mr. Foulke near the surface of the marl which had been thrown out, the entire mass was broken up and carefully raked over; and by this process, in two or three days, the number of teeth increased to nine, and some useful fragments of jaw were also added to the collection.

“Various specimens of shells were obtained; but their extreme friability rendered their preservation difficult. Several pieces of wood were found. The excavation was carried quite around the old pit, and extended so as to form a considerable area for search; but nothing further appeared, except a few vertebræ, and small fragments of other bones, and of wood, near the margin of the old pit. It seemed then useless to proceed, and the diggers were dismissed.”

The fossil bones collected were put in order and described by Prof. Joseph Leidy, and the animal was named by him *Hadro-*

saurus Foulkii. The former term is derived from two Greek words, signifying "powerful lizard;" the latter is in honor of Mr. Foulke, to whose exertions we owe the specimens, and by whom they were presented to the academy.

Besides a number of small fragments, the fossils collected consist of twenty-eight vertebræ; an arm bone, two bones of a forearm, several bones of the pelvis, a thigh bone, a shin-bone, a fibula, and several bones of a hind foot. The collection also contained nine teeth and a fragment of a lower jaw. These fossils are well preserved and are ebony black; and in association with them were found several teeth of extinct fishes, numerous shells, and some wood.

Hadrosaurus was a near relation of *Iguanodon*, an equally huge reptile of England, clearly of the same character and habits of life, and of cotemporary age. The latter animal, in a restored condition, forms a conspicuous member of Mr. Hawkins' great group in Sydenham Palace.

The teeth of *Hadrosaurus* evidently indicate the food of the animal to have been of a vegetable nature. Of the teeth of all other known animals, recent and extinct, they most nearly resemble those of *Iguanodon*, and these are of so peculiar a character that, when specimens were first sent by Mr. Mantell, the discoverer and biographer of the *Iguanodon*, to Cuvier, he pronounced them to be teeth of a Rhinoceros, and it was only after inspecting a series of additional specimens that he was convinced that he had fallen into an error, and recognized them as belonging to a reptile.

Hadrosaurus and *Iguanodon* lived at a time when none of the herb-eating mammals had come into existence, and they represented, during the Cretaceous period, the bulky Mastodon and Elephant of later times.

The teeth of *Hadrosaurus*, in general constitution and in the mode in which they were used and worn away, resemble more those of the giant herb-eating Sloths and the pachyderm and ruminating mammals of later periods, including the present time, than they do those of any living reptiles. In proportion with the great bulk of the animal, compared with those of the herbivorous mammals, they are very small, but this comparative deficiency in size appears to have been compensated for in

numbers. The teeth were not only numerous, but so closely applied in juxtaposition as to form a continuous, narrow pavement at the border of the jaw. The grinding surface was oblique, and bounded by a sharp cutting edge, produced by the single enameled vertical surface of the teeth. In the lower jaw the cutting edge was internal, in the upper jaw it was external.

The teeth in use were sustained by several series of successional teeth beneath, which followed the former in function as fast as they were worn out, while new ones were produced. In the number of teeth, the closeness of their arrangement, and the successive series, one is reminded of the dentition of the sharks; and, indeed, *Hadrosaurus* may be viewed as having been a "very shark" of the vegetable world.

The vertebræ, or bones of the spinal column, gradually increase in size from the head to the region of the pelvis and beginning of the tail, where they are of the greatest bulk, but the increasing breadth in the loins is accompanied with a diminution in length. In the tail the vertebræ gradually diminish in size, but without a proportionate diminution in length. The vertebræ of the neck and fore part of the chest have their bodies convex in front and concave behind. The others gradually change in this character until the bodies become nearly flat at both extremities. The spinous processes of the caudal vertebræ are of great length, and the well marked abutments below indicate the existence of well-developed chevron, or V-like lines. The caudal vertebræ, by their number, size and processes, indicate a tail of immense strength, great length and depth.

The bones of the fore-limbs are entire. The humerus, or arm-bone, is twenty-two and a half inches in length, the breadth at its upper part rather less than seven inches. The radius and ulna, or bones of the fore-arm are distinct, and differ but little in length from that of the arm. They indicate a freely movable fore-foot and toes.

The bones of the hinder extremities greatly exceed in size those of the fore limbs. The femur, or thigh bone, is forty-one and a half inches in length, with a breadth of its upper end of nine and a quarter inches. The tibia, or shin bone, is over three feet in length, and nearly a foot in breadth at the upper end.

The femur and tibia possess a large interior cavity for the marrow. The bones of the anterior extremity are solid, except a small, narrow cavity existing in the humerus. Two bones of the middle of the foot, or metatarsus, measure a foot or more in length, and a toe joint, or phalanx, measures six inches long by five and a third inches in breadth.

The great disproportion between the fore and back parts of the body of *Hadrosaurus*, led Prof. Leidy to suspect that the animal ordinarily assumed a position like that of the Kangaroo, sustaining itself like a tripod, on its enormous hinder extremities and powerful tail. This position, favorable to browsing on trees which grew along the shores of the sea, upon which the animal lived, is adopted for that of the skeleton in Mr. Hawkins' restoration.

The fossil wood, found in association with the remains of *Hadrosaurus*, indicates the cotemporary growth of forests of conifers, like our pines, which, perhaps, constituted a part of the animal's food.

Among the great multitude of living reptiles, a few feed on vegetable matter. Such is the case with several, as the *Iguana* and *Amblyrhynchus*, most nearly allied to the *Hadrosaurus*. *Amblyrhynchus* is a marine lizard, which feeds on algæ, growing on the shores of the Galipagos Islands.

From the great depth of the powerful tail of *Hadrosaurus*, it was probably a good swimmer, and, like *Amblyrhynchus*, amphibious. The long hind legs and tail may have been of great service to the animal while it browsed on huge Laminariæ and other gigantic sea-weeds, growing upon steep, rocky shores. In a prostrate condition, on all-fours, from time to time, it probably left its marine home to browse on trees growing on shore.

The restored skeleton of *Hadrosaurus* measures 26 feet in length, and stands on its hinder extremities and tail 13 feet 3 inches high.

There yet remain in the Museum of the Academy parts of skeletons of other huge extinct reptiles, which may be the material of future restorations similar to that of *Hadrosaurus*.

APPENDIX G.

CHAPTER 288.

An Act approving lines and grades established under authority of chapter six hundred and ninety-seven of laws of eighteen hundred and sixty-seven, and amending said chapter six hundred and ninety-seven, entitled "An Act to alter the map or plan of certain portions of the city of New York, and for the laying out and improvement of the same," passed April twenty-fourth, eighteen hundred and sixty-seven.

Passed April 22, 1868 ; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. The new pier and bulkhead lines, and the grade thereof laid out and established by the Board of Commissioners of the Central Park, in the North or Hudson's River from Fifty-fifth street to Spuyten Duyvil Creek, and on both sides of Spuyten Duyvil Creek and the Harlem River, from the North or Hudson's River to the line of the Third avenue, as the same are shown on the map entitled "Map showing the new pier and bulkhead lines laid out and established by the Board of Commissioners of the Central Park, pursuant to chapter six hundred and ninety-seven of the laws of the State of New York, passed April twenty-fourth, eighteen hundred and sixty-seven," dated New York, November nineteenth, eighteen hundred and sixty-seven, and signed by John J. Serrell, are hereby finally established and approved by the Legislature ; said map, with the communication from the Board of Commissioners of the Central Park to the Legislature accompanying the same, and the written petition of the owners of a majority of lineal feet of frontage on said pier and bulkhead lines, shall be filed in the office of the Secretary of State, to remain of record.

§ 2. It shall not be lawful to fill in with earth, stone, or other solid material, in the waters of the port of New York beyond the new bulkhead lines hereby established, nor shall it be lawful to erect any structure outside of, or exterior to, the said bulkhead, except piers, which piers shall not exceed seventy-feet in width respectively, with intervening water spaces of at least one hundred feet, nor shall it be lawful to extend such pier or piers beyond the new pier line hereby established.

§ 3. The provisions of section two of chapter five hundred and twenty-two of laws of eighteen hundred and sixty, are hereby made applicable to all piers, bulkheads, or other structures that may be built under and by virtue of this law.

§ 4. The Commissioners of the Central Park may, if they deem it necessary for the public interests, alter and amend any part or parts of the bulkhead lines in Spuyten Duyvil Creek and the Harlem River, and upon their filing in the office of the Secretary of State a map or maps showing any alterations or amendments that they have made, the bulkhead lines so shown on such map shall become and be the established bulkhead lines, and the provisions of this act shall be applicable thereto.

§ 5. Section six of said chapter six hundred and ninety-seven is hereby amended by striking out the words "but said Departments shall, upon the requisition of said Commissioners, proceed forthwith to do such work and make such improvements within the district aforesaid as properly come under their respective powers, as shall be required by the said Commissioners upon the plan, and in the manner specified by the said Commissioners," and inserting in the place thereof, as follows: "but the Board of Commissioners of the Central Park shall have exclusive power to regulate, grade, pave, sewer, curb and gutter, and otherwise improve, direct, manage, control and maintain such parts of all streets, avenues and roads as bound and surround any public square or place laid out or retained by said Commissioners as aforesaid, in that portion of the district mentioned in the first section of this Act, which lies west of the Eighth Avenue, in the same manner and to the same extent as the said

Commissioners now have and possess with respect to the improvements of the Sixth and Seventh Avenues in said city north of the Central Park.”

§ 6. This Act shall take effect immediately.

STATE OF NEW YORK, }
Office of the Secretary of State. }

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom, and of the whole of said original law.

[L. S.] Given under my hand and seal of office, at the city
 of Albany, this twenty-third day of April, in the
 year one thousand eight hundred and sixty-eight,

D. WILLERS, Jr.,
Dep. Secretary of State.

APPENDIX H.

COMMUNICATION OF THE COMPTROLLER OF THE PARK RELATIVE
TO WESTCHESTER COUNTY, HARLEM RIVER, AND
SPUYTEN DUYVIL CREEK.*To the Board of Commissioners of the Central Park:*

In the progress of laying out the north end of the Island the general suggestions, made in a previous communication to the Board concerning the relations of the southerly part of Westchester County with the City, have come to be practically important, and call for distinct notice and specific consideration before proceeding to complete the plans upon which the Board is now engaged. The lower part of the county of Westchester lies adjacent to the city of New York and is separated from it by a river of a width easily bridged or tunneled. It is so intimately connected with and dependent upon the City of New York, that unity of plan for improvements on both sides of the river is essential, not only for the future convenience of the inhabitants, but in order that the expensive processes of changing the plan of the coming City after it is built up may be avoided.

The leading avenues and lines of travel in the City of New York lie generally in a northeasterly direction, and reach the boundary between the two Counties at very different distances from the centre of business in New York; thus, the Second Avenue terminates at the Harlem River, at about seven miles from the City Hall; the Eighth Avenue at about nine miles, and the King's Bridge Road, on the west side of the City, at about twelve miles from the same point. There is therefore a triangular gore of the southwestern portion of Westchester County, five miles in length from north to south, and over two miles in width, from east to west, including all parts of the town of Westchester, that lies as near the business centre of New York as the opposite part of New York Island.

Most of the valleys in Westchester which afford easy lines

for travel, run in a similar direction as the leading avenues of New York.

The bridges that have up to this time been constructed across the Harlem River, are but cheap and poor affairs, with a capacity for travel that is so much less than that of the roads leading to them, as to occasion, particularly at those with swings or draws, interruptions and delays to travel that will soon become very serious.

The development of both Counties will be much advanced by providing means of a direct crossing of the river at the ends of most of the leading avenues of New York terminating at the river, and by laying such new avenues as are to be provided in New York, terminating at the Harlem River, as far as practicable, so as to connect readily and directly by bridges or tunnels with avenues leading immediately into the heart of Westchester County by the natural openings in the hills, or by convenient methods of surmounting them.

But little more than a decade has passed since the only roads from the City of New York into and through Westchester County, were the old Colonial Boston Post Road, and the Albany Turnpike; the former having its beginning nearly opposite the present termination of the Third Avenue, and the latter at King's Bridge.

After the building of Macomb's Dam and the Farmer's Bridge, near Fordham, roads were opened to them, each terminating in the road crossing Westchester from the Boston Post Road, and running through Fordham to the Albany Turnpike. Three leading lines of railroad already pass through this County, and two or three others are projected.

On its surface, which is generally well adapted for suburban residences, may now be found many beautiful private structures, as well as public institutions of great extent. Its steep and precipitous bluffs are chiefly, though not entirely, on the hills that lie along the Hudson and Harlem rivers.

The immediate front on the Harlem River is capable of being made available for the purposes of commerce and for the convenience of a large population. It is not too early to endeavor to guide, by such foresight as can be commanded, the progress of improvements in Westchester in con-

junction with those of this City, for the best ultimate interests of both; and so that the benefits which ought naturally to accrue to that County, from its proximity to the city, may not be postponed. Several villages have, within the last twenty years, been projected in Westchester by the owners of farms, which already embarrass the question of future improvements, and unless the difficulties are soon met by the adoption of a general plan, these embarrassments will have so increased, and become so fixed upon the ground, that no generation will be found bold enough to grapple with and remedy them.

Less than four square miles of the City of New York, above Astor Place, had been laid out in farm plots, without reference to any general plan, prior to 1807, and were but little built upon prior to 1811, when the plan of the City was adopted; and to this day, parts of this district have not recovered from the ill effects of this heterogeneous work of individuals. When once sales of territory are made in small subdivisions, questions of title so complicate and weigh down efforts to remedy past errors, that they are abandoned.

Although a street or avenue may be made more capacious by taking land from adjacent lots, yet by this process the lots bordering on it are often left of greatly reduced value and of much diminished convenience.

The southerly part of Westchester County is made up of the towns of Morrisania, West Farms, East and West Chester and Yonkers. The township of Morrisania already comprehends the villages of Morrisania, Mott Haven, Port Morris, Wilton, North New York, East and West Morrisania, Melrose, Woodstock, Elton, Claremont and Highbridgeville. The township of West Farms, comprises the villages of Tremont, Belmont, West Farms, Central Morrisania, Mount Hope, Mount Eden, William's Bridge, Fairmount and Fordham. These settlements are generally laid out with but little regard to each other or to their surroundings. The case is similar with that part of the town of Yonkers, which adjoins the City of New York, and those parts of the towns of East and West Chester within the same radial distance from New York City Hall as King's Bridge.

The rapid approach of the City has occasioned great changes in the subdivisions of land in these towns, and in the value of property. But a few years since they were but little altered in their surface, except by the work of the farmer, from what they were when all that portion of the country was granted to Vonder Donck, more than two centuries ago.

The increase of this City will within a short period, without doubt, require most of the area included within the southern part of Westchester for the homes of her artizans and merchants, and the solution of the question of rapid conveyance of business men between their homes and business, is all that is required to cover the unsettled portion of New York and the picturesque hills and valleys of the southerly part of Westchester with the residences of these classes and of those who desire to live near a great city.

The Harlem River and Spuyten Duyvil Creek are the boundary line between the two counties, the jurisdiction of the City of New York extends to low water mark on the Westchester shore. It needs but a short look into the future to see this river busy with the craft that are to supply the thriving population on both its banks.

At present these waters are but little navigated for commercial purposes; in some parts they are obstructed by mud-flats and by illy constructed bridges.

These two are really but one river, or rather they are an estuary connecting the tide waters of the East River and the Sound with those of the north side of the City, and can only be properly considered in connection with the waters they unite. As a water way for commerce, this estuary has the advantage of the Thames in the far less inconvenience arising from the rise and fall of tides, in the Thames sometimes equal to twenty-one feet, occasioning great expense in the construction of storehouses, and in handling goods to be loaded and unloaded.

The tides on the Harlem rise about six feet. It has the advantage of the Seine by reason of its easy debouchment into both rivers, the falls of rain that sometimes suddenly swell the Seine, occasioning great inconvenience, have no important effect on the Harlem.

At a small cost in comparison with the accruing benefit, a channel can be made from the North River to Long Island Sound, through the Harlem River, with greater depth of water than the North River affords at some points between this City and Albany, and of width sufficient for all the practical purposes of the commerce that will seek to use it.

The importance of measures for the improvement of the navigation of this river, was made the subject of a general communication to the Board in the year 1865. It has since been brought to more general notice, and is beginning to command the attention of land owners in New York and in Westchester County, as it should, and sooner or later will, that of the public authorities of both counties, and of the State, as it concerns deeply a large portion of the commerce of the interior.

Without again detailing the results to be anticipated from such an improvement, it is sufficient to repeat that it will shorten the distance of the travel between the North River and the waters of the Sound, and of a large portion of the City of Brooklyn lying on the East River, and between the North River and the Eastern States by more than twenty miles around the Battery, of the tedious, expensive and unsafe navigation of the crowded waters that skirt the city; and, in connection with the improvement proposed at Hell Gate, will increase the facilities of foreign traffic by the Sound.

As early as the year 1700, these waters of the Harlem and Spuyten Duyvil were respected as a navigable stream. It is on record that the first bridge across them was a draw-bridge at or near the site of the present King's Bridge, erected by Frederick Phillipse, prior to that year.

Recent surveys made under the direction of the Commissioners of the Central Park, establish the fact that prior to artificial obstructions in the river near King's Bridge for the erection of a water-mill, about the commencement of the present century, the channel near that point at the narrowest part of the river, must have been over one hundred and fifty feet in width, and at least six feet deep at high water of ordinary tides. It has been reduced by artificial methods to its present width, at the same point, of not exceeding eighty feet.

Between King's Bridge and the East River, navigation was obstructed by Macomb's Dam and Harlem Bridge in the present century. It was afterwards threatened with a more formidable barrier in a bridge proposed to be built to carry over the Croton Aqueduct, the erection of which was resisted by citizens both of Westchester and New York, at whose instance the Legislature, in the year 1839, passed an act limiting the obstructions to those presented by the High Bridge.

The gentlemen who so successfully resisted the attempt to obstruct navigation by the Croton Aqueduct Bridge, also took measures to prevent its further obstruction by a bridge at the Second Avenue, and to remove Macomb's Dam, and cause draws to be constructed in the bridges at the Third and Fourth Avenues.

In the proceedings before the Courts relating to this matter, it was shown that prior to the year 1813, the Harlem River was regularly navigated as far up it as Farmer's Bridge by vessels carrying various kinds of produce, lumber, and other building materials. Spuyten Duyvil Creek is now navigated by North River sloops and other vessels, from its mouth to within a few yards of King's Bridge.

In the case of "*Renwick vs. Morris*," in the Court for the Correction of Errors, affirming the judgment of the Supreme Court, it was held that Macomb's Dam, as constructed, was a public nuisance, liable to abatement, although it had existed as such for over twenty years on a navigable river.

This water way affords advantages of navigation for a distance of over five miles to each County, equal, if not superior, to those furnished by the North River and Long Island Sound to the rest of the County of Westchester.

It cannot be doubted that great benefits would result to both Counties, if the navigation of these waters were properly improved. But this improvement cannot be well done, if it even can be done at all, by the separate powers of each County. The method of proceeding would probably be to build bulkheads on both sides of the channel opposite each other at the same time, and deposit the material which must be dredged from the channel behind both lines of bulkhead in proper proportions. When the obstructions at King's Bridge are

reached, the whole width of the river may be closed for a distance of about fifteen hundred feet, the water pumped out, the rock in its bed blasted, and the material removed for the whole required width and depth by one set of employees; walls are then to be built on both sides, and fendered and secured before opening the river again. It is not possible to do this work by piece-meal—it must be done as a whole, and to be well done, it must be done under one authority.

It is an undertaking in which the public not merely on the banks of the river, but over a very wide extent, is greatly interested; as things now stand, different jurisdictions and forms of municipal government, through all the territory immediately affected and to be directly benefitted, will very much embarrass its accomplishment. It is doubtful whether it can be satisfactorily carried out by any private company, and without the provision by intelligent legislation, of adequate means entrusted to some competent body duly authorized thereto; to invest any private company with the right to exclude vessels from passing through this water-way, except upon payment of tolls, would be open to great objection.

The problems to be solved for all time, are those of the accommodation by the most improved modern methods, of traffic across the river, and of traffic on the river, so that each shall not interfere with the other.

The improvement of the navigation of the river is one subject, and the method of carrying persons across it another. Having alluded to the former, the other question, that of crossing the river, remains to be briefly considered.

Some idea of the extent of bridge and tunnel communication that will ultimately be required between New York and Westchester, may be obtained from the experience of the cities of London and Paris.

There are now in London, seven bridges across the Thames, devoted to ordinary traffic, and three exclusively for railways, within the distance of three miles, beginning at the east; they are as follows: London Bridge, Southwark Bridge for general traffic, and at a distance of 1,450 feet from the former, between these is a railway bridge; the next is Blackfriar's Bridge, at a distance of 2,450 feet from Southwark Bridge; another railway

bridge lies between the two last named; then comes Waterloo Bridge, at 2,900 feet from Blackfriar's Bridge; then Westminster Bridge, 3,150 feet from Waterloo Bridge, with another railway bridge between them; next is Lambeth Bridge, distant from Westminster Bridge 2,250 feet, and is followed by Vauxhall Bridge, 2,700 feet further up the river and near the limit of dense population; beyond these are Chelsea and Battersea Bridges, each at intervals a little over a mile.

These bridges vary in length from 708 feet to 1,380 feet, and are of various widths.

Less than a century ago the only bridges over the Thames within the above limits, were Old London, Blackfriar's and Westminster. Since then, Old London Bridge has been removed as inadequate for the modern travel, and New London Bridge built near the site of the old one: Blackfriar's and Westminster have been improved and rebuilt, and all the others newly constructed. In building the New London Bridge and the others, very great expense was incurred for opening the new streets and approaches to them, and great delay incurred thereby. Most of these bridges are designed upon an extensive and magnificent scale as to the extent of the accommodation afforded, and are works of engineering skill and architectural beauty. It is stated that the cost of the New London Bridge and the approaches to it, over thirty years ago, was £2,000,000 sterling, or about fourteen millions of United States currency. In addition to the bridges mentioned, the opposite banks of the Thames are connected by the Thames Tunnel, at the distance of about two miles below London Bridge.

Within the limits of the City of Paris, the river Seine is crossed by twenty-six bridges in the distance of seven and a half miles, including the number which cross both of the channels passing the Isle of St. Louis and Isle de Palais.

Seven of these bridges are suspension, three are of iron on stone piers, one is of wood, and the rest are of stone; their length varies from one hundred and seventy feet to four hundred and sixty feet, and their breadth from fifteen feet to eighty-three feet; two of them are for foot passengers only, and two exclusively for railways.

Twelve of the bridges are less than one thousand feet dis-

tant from the nearest bridge to them. Between fourteen of them, the distance is less than two thousand feet each, and the greatest distance between any two of them is but four thousand and seven hundred feet. Many of them are most elaborate and elegant structures, and were erected at great cost; in both London and Paris several of these bridges were built by private enterprise, and profit derived from tolls collected for passing them; but of late they have mostly been built as free bridges at the expense of the municipalities, and several of the bridges that formerly were toll bridges, have been made free.

Whenever the population of New York and Westchester shall assume the density on the shores of the Harlem River and Spuyten Duyvil Creek which that of London has on the Thames, and Paris on the Seine, the means of communication must be fully equal to that afforded across the Thames and Seine, and it must be borne in mind that the general traffic over bridges crossing the Thames and Seine is not obstructed by draws and openings.

The length of the water way from the North River to Little Hell Gate, measured through the Spuyten Duyvil Creek and the Harlem River, is about 39,000 feet—nearly eight miles. The average distance between bridges for general traffic in London is 2,100 feet, and in Paris, 1,500 feet.

The average distance of those in London would give nineteen, and of those of Paris nearly twenty-five for equal accommodation across the Harlem River and Spuyten Duyvil Creek, to the East River, and their length, excepting those that may be built on the suspension plan, would probably vary from 250 to 600 feet.

If the City of New York and Long Island shall hereafter be connected by bridges, the distance between Ward's Island and the Battery would require twenty-two of them, if they crossed as frequently as in London; and thirty, if they were built as near each other as in Paris.

The construction of proper approaches to tunnels under the Harlem River would be much easier than in London, because the average rise and fall of tide is nearly 14 feet less in New York than in London, and that difference in grade alone would

be very beneficial if equal size of tunnel and depth of channel were maintained in both cities.

The width of the Seine through the City of Paris is from 100 to 600 feet.

The width of the Thames through the City of London is from 870 to 1,200 feet.

The width of Harlem River and Spuyten Duyvil Creek, between New York and Westchester, is from 200 to 450 feet.

The width of the East River between the pier head lines of New York and Brooklyn, is from 1,200 to 2,500 feet.

The width of the North River, between New York and New Jersey, is from 2,700 feet to 4,000 feet between the pier head lines.

In various reports, discussions, affidavits and remonstrances on the subject of the improvement of the Harlem River, and in relation to the removal of obstructions to navigation, much stress has been laid on the fact that even draw or swing bridges add greatly to the expenses of transportation.

These, with other considerations of a public character, would suggest the desirability, whenever practicable, of constructing tunnels in lieu of bridges.

From the East River to Macomb's Dam the shores of the Harlem River are too flat to admit of the easy construction of aerial or suspension bridges, but are thought to be fairly adapted to the construction of tunnels under the river bed, at such depth as would not impede navigation.

From High Bridge to Sherman's Creek, aerial or suspension bridges might be built at as great altitude as the High Bridge of the Croton Aqueduct, and again from Sherman's Creek to the North River, tunnels could be constructed under or bridges over the river and creek wherever crossing from shore to shore was shown by proper topographical examination of the two counties to be required.

In determining the height of bridges, it should be remembered that steam vessels are rapidly supplanting sailing vessels, and that therefore the construction of bridges to accommodate lofty masts is a constantly diminishing necessity, and that by the striking of the top-masts and top-gallant masts, many sailing vessels might be accommodated, with diminished height of bridge.

The subject of the sewerage of the northern part of New York Island and all the southwestern part of Westchester is one in which the citizens of both places are equally interested, and should be arranged under one homogeneous system.

The amount of sewage and offal which, without proper regulation, would be cast into the Harlem River from either, or both shores, would, by reason of the limited width of the river, be likely to be injurious to the healthfulness of both, and detrimental to navigation.

Immense outlays are now making to free the Thames from the noxious effects of the city sewage; measures for the same purpose should be undertaken at the Harlem River.

The supply of pure and wholesome water in Westchester is another subject demanding early attention, in order that the wants of her increasing population may be met at the proper time.

It is problematical whether the supply of water that can be drawn through the Croton Aqueduct, after the immense storage reservoirs now building in Putnam County are completed, will be more than the City of New York with its present limits, will ultimately require under rigid rules to prevent waste.

It is certain that much of the land in the southern part of Westchester is too highly elevated to be able to draw water from the Croton Aqueduct, if the supply were enough to warrant it, yet a judicious arrangement of the means and resources now unused in Westchester, in combination with the use of such portion of the surplus of the Croton water as the season might afford, would be productive of immediate benefit to property on both sides of the river, and very much hasten its occupancy.

The Bronx and Saw Mill Rivers are the only resources that are likely to be availed of for the supply of water to the lower part of Westchester County, and the supplies that they will afford should be secured and devoted for such purposes at as early a period as possible, and before the banks of those streams are occupied with establishments that will pollute the waters and render the streams unfit for use, except at the great expense of buying off this class of occupancy.

From the period when the question of supplying New York

City with pure water first occupied the public mind, until the year 1841, when the Croton water was finally introduced, more than half a century elapsed, and various projects were entertained and discussed.

The Collect Pond, in this city, Artesian Wells, the Bronx, and Saw Mill Rivers, the Housatonic River, and the Croton, each had their advocates, as well as the Passaic, since appropriated for the supply of Jersey City and its surroundings, and even a project for damming the Hudson River opposite Amos Street (now West 10th Street), making slack water navigation above it, and using the water power afforded from it to pump a supply for the city, was proposed and entertained.

During the time thus employed in considering various plans, the material interests of the City of New York suffered severely for want of pure water for her citizens, and an adequate supply for the extinguishment of fires, and large sums were expended by the Manhattan Company in futile efforts to obtain a supply of pure water for domestic purposes, and by the Corporation of the City to procure a supply from similar sources, sufficient for the use of the fire department, in both cases unsuccessfully; the probable result of the latter failure was the disastrous fire of December, 1835, when more value of property was destroyed in one night than the original cost of the Croton Water Works.

The ancient boundaries of the City of New York extend to low water mark on its opposite and surrounding shores, thus giving to the city, territorial jurisdiction over the adjacent rivers. Serious disputes have arisen with the State of New Jersey, and much trouble occasioned with Brooklyn, in regard to jurisdiction at her wharves, as well as regards the ferries to Long Island.

The question of ferries across the North River is still in an unsatisfactory condition, each State claiming the right to make laws to regulate them. The City now owns in Westchester County the line of the Croton Aqueduct, and a large area of land in Putnam County, for existing and future reservoirs.

The building and maintenance of bridges between the Counties of New York and Westchester, has already been the occasion of vexation and trouble. Westchester has claimed that

she ought to pay only a portion of the expense of erecting a bridge over the river, equal to the proportion of it that stands within her jurisdiction, which extends only to low water mark on her own side of the river, thus charging that County with but a very trifling part of the whole expense. This it is believed has been the basis claimed by Westchester on every occasion of building a bridge between the two counties.

The laying out of roads and bridges, and the apportioning of expenditures for great works built in the interest of both Counties and of the whole public, should be taken out of the petty squabbles of small jurisdictions, and left to the determination of some body with comprehensive powers, capable of dealing with these subjects, not in the interest of New York alone, or of Westchester alone, but in that of both, and of the whole public convenience.

The inconveniences that arise from the existing diversity of legislative, judicial and executive functions, and of officers that have a patched and piece-meal jurisdiction over divers portions of the territory in question, are daily experienced ; to remedy this in some degree it has been found desirable to extend the powers of the Police Board, and the Health Board, not only over New York and Westchester, but over Kings and Richmond Counties, though still at the different ends of every existing bridge over the Harlem, the police are required to enforce different excise regulations.

To-day, under acts of the Legislature, passed recently, there are at least seven separate and independent Commissions engaged in laying out, working and grading streets avenues and roads in the towns of West Farms and Morrisania, and several of the lines of these roads necessarily intersect each other, and the separate town authorities also still exercise their control as to working and grading the remaining streets, without reference to these several Commissions.

It will be observed that this communication is confined to works of a physical, material character, in which both Counties have a common interest—such an interest, present and prospective, as will be best fostered by unity of development : these works are the water supply, the sewerage, the navigation of the interjacent waters, the means of crossing these waters,

and the land ways that should be laid on each side so as to furnish the best facilities for both. In this enumeration nothing is included that will not be more wisely and better planned and executed by a single authority, and nothing that proposes any present change in political jurisdiction, or that is calculated to disturb the functions or privileges of any existing officer or officers.

The location, building, and maintenance of bridges or tunnels across or under the river, the proper times for doing it, the improvement of the navigation of the river, and the maintenance of it, and the proportion of expense to be borne by the property benefitted, can scarcely be adjudicated by independent political corporations, and the time that would be lost in conferences or litigations, and in efforts of the representatives of each City or County to throw an undue portion of the expense on the other, would be the occasion of detriment to the prosperity of all interested.

If the convenient administration of the laws in these adjacent Counties has required the exercise of an united authority in certain departments, why in the case of clearer necessity for unity in the planning and building of these material works, should it be found difficult to secure the agencies that will insure such unity, with entire acceptability to the people of both Counties; and although the advantages to accrue from a consolidation of a portion of Westchester with New York and Brooklyn into one municipality, with one executive head, will force itself upon the mind, yet all that is suggested or required in the material works above enumerated, may be gained without such consolidation. A competent body may be constituted, with all needed powers for the purpose, without territorial consolidation, and without raising those purely political considerations which may be delayed until the necessity of territorial annexation demand immediate attention.

Heretofore, where a measure has involved the interest of both Counties, it has been usual to compose a body of citizens, selected from both Counties, for its execution; and perhaps this would be the preferable way, though it does not seem to have worked very well on the Third Avenue Bridge. The method to be adopted will probably be left to be determined, so far as

Westchester is concerned, by the wish of the people of that County, as expressed by its representatives in the Legislature.

It is not intended now to do more than direct attention to the important subject of bringing the City of New York and Kings County, a part of Westchester County, and a part of Queens and Richmond, including the various suburbs of the city, within a certain radial distance from the centre, under one common municipal government, to be arranged in departments, under a single executive head.

It would not be difficult to present reasons for such a territorial consolidation that will increase in cogency as population augments, and as facilities of intercommunication are developed to meet in some degree the demand of this population.

More than one and a half million of people are comprehended within the area of this City and its immediate neighborhood, all drawing sustenance from the commerce of New York, and many of them contributing but little towards the support of its government.

An area that could be readily described, of convenient distances from the centre, would comprehend within its limits the residence as well as the place of business of most of its population; thus resolving the difficult question of taxation of non-residents that now exists.

Each department would be rateably represented in a common legislative assembly, and the expenses of government would be apportioned, and borne by separate departments, and judicial, police, and sanitary powers executed under equal and uniform regulations. The existing public property of each department would be left to be applied to its separate indebtedness and improvement.

It would be best, at the outset, to disturb but few existing officials; their offices should be left to expire with time, and with the general conviction that they were not wanted; all purely political questions and jurisdictions might remain as at present—the idea being, gradually to bring, without a shock or conflict, the whole territory under uniform government.

Can any one doubt that this question will force itself upon the public attention at no very distant period? Ingenuity is

now taxed to devise methods of carrying people from the suburbs to the centre, and the relations of the city with the suburbs are daily becoming more direct and immediate.

The great procession that continually moves towards our city from the old World, makes its first halt at Staten Island, in Richmond county, preparatory to its still Western progress.

Measures are now on foot to unite Brooklyn with New York by two magnificent bridges, which are but the precursors of others, and which are to supplement the thronged ferries. A system of capacious ways is already projected to connect the extensive parks, that both municipalities are now engaged in adorning—each with its own characteristics, and each with its own peculiar attractions.

Westchester is demanding ways to transmit her population to the city; Richmond county, by her ferries and railways, is exerting herself in the same direction; all progress points towards eventual consolidation and unity of administration; the disadvantage of an incongruous and disjointed authority over communities that are striving by all material methods that the skill of man can devise to become one, will be more and more apparent, and the small jealousies and petty interests that seek to keep them separated will be less and less effectual.

Having submitted, as an examination of the subject has convinced me was my duty, the practical questions relative to the intercommunication between the northern part of the Island which is now being laid out for a future city, with that to which it is tied by indissoluble connections, with some views on cognate subjects that naturally arise in the discussion, I leave the same with confidence to be disposed of as the Board may deem most judicious for the present and future interests of the great community for whose benefit it has been invested with powers more extensive and responsible than are often committed to any body of citizens.

Dated New York, December 30, 1868.

Respectfully submitted,

ANDREW H. GREEN,

Comptroller of the Park.

Topographical Description of the Central Park, by Areas of Surface, &c., January 1, 1868.

Length of Park, from 59th to 110th streets.....	13,507 ft. $9\frac{4}{10}$ in.
Breadth " " 5th to 8th avenues.....	2,718 " $6\frac{9}{10}$ "
Superficial area.....	843. $\frac{919}{1000}$ acres.
" " Ground known as Manhattan Square.....	19. $\frac{951}{1000}$ "

	Acres.	Elevation of water above tide	
Area, exterior to inclosure, 59th street and 110th street, Broad Walks.....	3. $\frac{998}{1000}$	Feet.	862. $\frac{270}{1000}$ "
Do. occupied by four Transverse Roads..	9. $\frac{474}{1000}$	....
Do. " new Croton Reservoir.....	106. $\frac{726}{1000}$	115.20	
Do. " old Reservoir.....	35. $\frac{289}{1000}$	115.20	154. $\frac{587}{1000}$ "
Total area of Park within enclosure, exclusive of above areas...			707. $\frac{483}{1000}$ acres.

	Acres.	Elevation of surface when full above tide Summer lev'l	
Area of the Pond (near 59th street, between 5th and 6th avenues)...	4. $\frac{800}{1000}$	Feet.	26.00
Do. " Lake (between 72d and 78th sts.)	20. $\frac{167}{1000}$	53.20	
Do. " Conservatory water (east of Lake near 5th av.).....	2. $\frac{579}{1000}$	41.00	
Do. " Pool (near 8th av., between 101st and 102d streets).....	2. $\frac{913}{1000}$	45.00	
Do. " the Harlem Lake.....	12. $\frac{654}{1000}$	11.00	
Do. " the Loch.....	1. $\frac{046}{1000}$	24.50	
Total area of waters of the Park at this date.	43. $\frac{259}{1000}$	acres.	

	Acres.	
Area occupied by Carriage Roads.....	49. $\frac{580}{1000}$	
Do. occupied by Bridle Roads	15. $\frac{371}{1000}$	
Do. occupied by Walks.....	38. $\frac{947}{1000}$	
Total.....	103. $\frac{898}{1000}$	acres.
		147. $\frac{157}{1000}$ "

Total area of ground within inclosure, exclusive of Reservoirs, Ponds, Roads, and Walks.....	560. $\frac{326}{1000}$ acres.
Area of rock surface mainly without soil or shrubbery, <i>estimated</i>	24 "
Area of Park ground fertilized, or chiefly fertilized, and in trees and shrubbery, or in open lawns, exclusive of Reservoirs, Roads, Walks, Ponds, rock surface, &c., <i>estimated</i>	536. $\frac{326}{1000}$ acres.

